THE ECONOMICS OF EVERYDAY LIFE

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THE ECONOMICS OF EVERYDAY LIFE

A FIRST BOOK OF ECONOMIC STUDY

by

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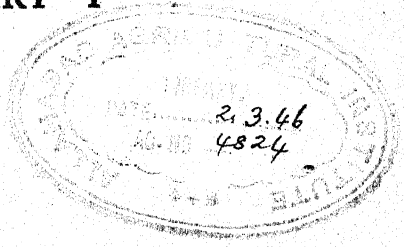
PART I



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PREFACE

Political Economy, or, as it is more generally called at the present day, **Economics**, is a subject which has hitherto found very little place in a general education. This is no doubt partly due to the way in which it was presented by many of the earlier writers. They treated it in so abstract a manner that it seemed far too difficult and far too removed from ordinary experience for young students to derive any educational or other advantage from its study. As a matter of fact, however, the subject is an intensely practical one; it deals with problems of everyday life, and everyone can find abundant material for observation and comparison in his own home and in his own surroundings.

Moreover it is being increasingly recognised that for the proper discharge of the duties of citizenship some knowledge of Economics is absolutely essential. Great social and economic problems are constantly needing solution, and those who are called upon to assist in that solution by supporting or opposing any particular measure or line of action should have a sufficient understanding of economic cause and effect to be able to act with judgment and conviction. The foundation of such economic study

may well be laid during the period of school-life, but for this a text-book is necessary in which the essential features of the subject are simply described and clearly explained.

An introductory book of this kind is besides often felt to be a necessity even by those of more mature years, social workers and others, who are taking up the subject for the first time.

The present work is an attempt to supply both needs. It is strictly elementary in its character, and should therefore be regarded as a stepping-stone to more advanced study. Considerable use has been made of simple diagrams, the idea being to show at a glance and to emphasize the facts that have been explained in the text.

T. H. P.

OXFORD.
January, 1913.

NOTE ON THE SECOND EDITION

THE Currency changes brought about by the Great War have been so great as to necessitate the re-writing of the section on Money. This subject has now been brought quite up to date.

T. H. P.

LONDON.
September, 1927.

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BOOK I

INTRODUCTORY

CHAPTER I

THE SUBJECT OF ECONOMICS

"Economics is the study of mankind in the ordinary business of life." MARSHALL[1].

TO most of those taking up this book **Economics** will be a new subject of study. It is therefore very necessary at the start to make quite clear the exact meaning of the term.

The name itself is not very attractive. It seems to suggest something difficult and uninteresting, but as a matter of fact it stands for a science dealing with certain matters of everyday life of which everyone has heard and with which everyone is more or less familiar.

This science seeks to explain a great deal of what is going on all round us. We see men and women, and sometimes boys and girls as well, going about their daily work, all busily employed in what we call "earning a living." They all have wants which, if they did not work, would have to remain unsatisfied. The effort made to

[1] Late Professor of Political Economy in the University of Cambridge. Author of *Principles of Economics*, etc., etc.

procure the satisfaction of their wants is called **economic effort,** and Economics deals with the **causes,** the **nature** and the **results** of such effort. In other words **man's activity in supplying the needs of himself and his family is the subject of Economics.**

It must be remembered, however, that this is a **social science.** It deals with certain actions of men living together in an organized community; not with those actions which a man may perform in which his fellow men are in no way concerned, but with actions which bring him into contact with others and which affect others as well as himself. All have read tales of adventure in which some unfortunate person is shipwrecked on an uninhabited island. He shows the most marvellous ingenuity in making use of the few things he has saved from the wreck to render his life comparatively comfortable. This activity is frequently called economic inasmuch as it is devoted to the satisfaction of his wants. He is hungry and cold and exposed to the attacks of wild animals or of savages from some other island. He needs food, clothing and shelter, and he has to work hard and to think hard, to use both his hands and his brain, before he can get them. Yet the science of Economics is not concerned with actions such as these, because they affect only himself and because his circumstances are altogether exceptional. It only takes into account the economic effort of men living with other men, working with others, dependent to a certain extent on others, giving in exchange for the services or goods of others their own services or the products of their own labour.

Again, in every household there are actions performed daily which, though they aim at the satisfaction of wants, can hardly be regarded as coming within the scope of Economics. I refer to the household duties of the wife and the assistance in them perhaps of her older children,

as well as to the many forms of service which members of a family continually render to one another. Economics would take notice of the activity of each individual bread-winner of the family in the getting and spending of his or her income, but cannot take notice of home services performed in the interests of the family as a whole, without payment and without measurement.

We shall therefore regard as outside the scope of our subject such forms of activity as the endeavours of the man living in solitude to provide for his wants, and the domestic duties and labours of love which form a characteristic feature of the family life.

It is frequently asserted that Economics is the **Science of Wealth**, but this seems to be looking at the subject from a wrong point of view. **What we are really studying is not wealth but man.** It is true that we confine ourselves to that part of man's activity which has to do with wealth, but none the less the subject is man, his wants, his efforts to supply those wants, his use of what he has obtained by his efforts, his dealings with his fellow men which must take place before his wants can be satisfied. Wealth plays a very prominent part, but it is throughout subordinate to man and his activities. In short, Economics deals *primarily* with **man** as **wanting, working, getting, spending,** and *secondarily* with the **wealth** which can satisfy his wants, which he helps to produce, and of which he gets a share, first in the form of money income and then in the form of the various things on which the income is expended[1].

THE SOCIAL SCIENCES.

It has been already stated that Economics is a social science, that is to say it deals with men, not living alone or

[1] The exact meaning in Economics of the term *wealth* will be discussed in Chapter III.

on desert islands, but, as we are accustomed to see them, living in close contact with their fellows, living in organized societies of which every individual member has certain definite relations to the society as a whole as well as to the other members of it. These relations are of such different kinds that it is usual to classify them—to mark off the different sets of relations from one another, to study them separately and to give to each study a distinctive name. Economics is only one of many social sciences, it deals with but one of these sets of relations, and therefore it will be useful to mark off the *economic* as clearly as possible from the other departments of man's social activity.

We can think of a man as having various social activities:—

1. He is a member of the human race, bound to other members by the tie of a common humanity and by the obligations common in all forms of society.

2. He is a member of a family or household, bound to the other members by the ties of blood and common interest.

3. He lives in some particular town or village; he shares therefore in its activities and submits to local regulations.

4. He belongs to a particular country and nation. He is a subject of the State. He recognises its government and is bound by its laws.

It is in these various capacities, as a **social being**, as **a householder**, as a **neighbour**, as a **subject**, that man finds a field for those social activities which we are now seeking to classify.

In the first place there are certain general principles underlying man's thought and action in all stages of social development, and in every relation of life. The study of these is called **sociology.**

Secondly, there are certain moral considerations and principles which affect his conduct and which constitute a standard of right and wrong. The study of these is called **ethics.**

Thirdly, there are certain laws and regulations imposed on a man by the community or State to which he belongs. Some things are allowed to him, others are forbidden. The study of these limitations placed on his freedom of action is called **law** or **jurisprudence.**

Fourthly, in every human society there arises the need for organization, for government. The governing body of the State exercises control over the individual members, and the individual members render it obedience. The study of the principles of government and of the relations existing between the subject and the State is called **political science** or **politics.**

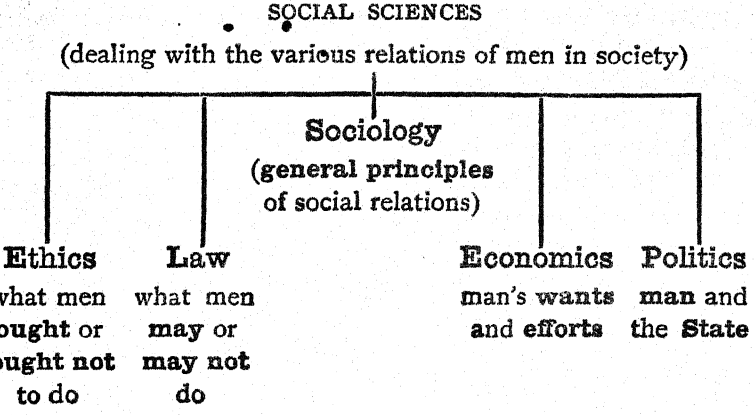
Lastly, a considerable portion of man's social activity is devoted to the satisfaction of his wants. The study of man's actions in getting and spending his income is called **political economy** or **economics.**

We have marked off four kinds of social relations, the **ethical,** the **legal,** the **political** and the **economical,** but it is not always easy to keep them apart in practice. For example, we commonly regard all questions of taxation, of the revenue and expenditure of the State, as coming under the heading of *Economics.* But taxation is a function of government and might therefore be regarded as *Politics.* Again, much of man's economic activity springs from other than economic motives. He works not only from a desire to satisfy his wants, but also from a sense of duty; he is animated perhaps by family affection, or by a desire to help others. Thus his motives are ethical or social as well as economical.

In spite of this overlapping, and in spite of the difficulty of tracing a clear boundary line, we are able in the main to

distinguish these sciences from one another, and we shall have no difficulty in deciding which of man's actions are economic even if they are influenced by moral considerations, by the restrictions of the Law and by the requirements of the State.

The scope of the different social sciences may be roughly indicated by the following diagram:—



CHAPTER II

THE DEVELOPMENT OF ECONOMIC LIFE

"Wants—efforts—satisfaction...this is the circle of Political Economy." BASTIAT[1].

ECONOMIC ACTIVITY.

Having now got a clear idea as to what Economics is and as to how it is related to the other social sciences, it becomes necessary to look a little more closely into the nature of what is called **economic activity**.

[1] A French writer on economic subjects; born 1801, died 1850.

The fundamental cause of all economic action is that men have wants. These wants lead them to make certain efforts, and through these efforts they obtain the satisfaction of their wants. This must be our foundation—**wants lead to efforts and efforts bring satisfaction**—and on this we must build our economic structure.

When, however, we look at the industrial life around us, the connection between these three—wants, efforts and satisfaction—does not seem so clear. A man wants bread but as he is a carpenter he makes tables or cupboards. The children of another man want boots, but he is a clerk and works all day in a counting house. Yet in either case we may say that bread and boots for the family are the final outcome of the father's work. He has not produced them, but someone else has, and the result of one man's effort is exchanged for that of another. It is evident therefore that under modern conditions men are economically dependent on one another, and by supplying each other's wants they really satisfy their own. There was a time when everyone produced just what he needed to supply his wants, and in some parts of the world people still do so to a limited extent, but this is not the case with people in a country like England. In most countries to-day people devote their energies to some particular work or employment, and what they earn in that way they spend in providing for their wants. Let us trace the history of this very important change.

STAGE I. **Direct Effort.**

Beginning with men in a savage state, we notice how very clear is the connection between their wants and the efforts they make to supply them. The wants of the savage are fewer than our own, but they are no less urgent. He is hungry and he must get food. He lives

perhaps on the flesh of wild animals, and these must be hunted and killed before his hunger can be satisfied. If he catches more than he can eat, the surplus is of no use to him, for he has no means of preserving it, and so when he is again hungry he must obtain fresh supplies. Each recurring want leads to a corresponding effort; and it will be the same with his other wants. He will no doubt make some kind of hut for purposes of shelter, collect shells for ornament, fashion vessels for cooking or for holding water, make the weapons he needs in the chase, or, if he lives beside the water, hollow out the trunk of a tree to make himself a canoe. This may be called the **first stage** of economic life. The **want** calls forth an **effort** which results in the **direct satisfaction** of the want.

Stage I

WANTS——EFFORTS——SATISFACTION

In all the stages of development these three ideas are inseparable from one another. In Stage I the connection is **direct,** in the later stages **it is indirect.**

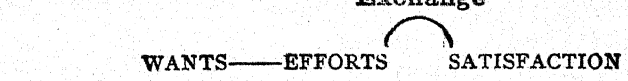
STAGE II. Indirect Effort.

The state of things just described is of course a very primitive one, and even among savages we shall find that economic life tends to become a little more complicated. We can imagine that a member of the tribe gets injured, and can no longer go hunting. While the others are away he possibly spends his time making weapons or fashioning some tool or ornament. Why does he do this? Not because he wants more of these, but because he wants food, and he knows that he will be able to exchange the results of his effort for the food brought home by another of his tribe. His effort is not now expended on that which will *directly* satisfy his want, but on that which will

do so *indirectly*. In time the injured man will, from practice, get such skill and dexterity in his occupation that his weapons or ornaments will be in great demand, and he will find that by devoting himself altogether to the making of them he will get far more given him in exchange than he himself could have produced by direct effort. As men become more civilized the economic advantage of keeping to one trade will become more and more evident, and instead of the individual members of the community supplying their own wants directly, each man will be pursuing some particular calling and exchanging what he produces for what he needs. **Division of Labour** as it is called has been introduced. The wants of men become more numerous and their efforts result in a far greater amount of satisfaction.

This then is the **second stage** of development. The want leads not to an effort which will bring *direct* satisfaction, but to one which will bring satisfaction *indirectly*. Between the effort and the satisfaction of the want there is now a gap and this gap is bridged by **barter** i.e. the **exchange** of one product for another. Thus:—

Stage II



STAGE III. The Industrial Group.

It is not necessary for our present purpose to trace man's development through the various stages of productive effort—the hunting, the pastoral, the agricultural, the age of handicraft and the age of machinery. Our object is to show how the complex economic life of to-day is connected with the simple economic life of more primitive man. We pass over therefore the progress of civilization

and the changes of industrial method and confine our attention to the one point—the way in which the effort brings the satisfaction of the want.

The *third* stage in this development may perhaps be seen to a certain extent even among those we call savages, but it does not become general till society has made considerable progress in the arts of life. Not only has man found the necessity or advantage of producing for the wants of others, but he has learnt to combine his work with that of others, he has learnt the value of **association** and **co-operation.** In this stage the **Division of Labour** is carried still further. A group of men undertake a task, assigning to each member of the group some particular portion of it. Let us take as an example the building of a canoe. In the *second* stage the canoe builder would have chopped down the trees he required, and would have himself done all the processes of shaping, covering, etc., with which we are so familiar in Longfellow's *Hiawatha*[1]. But in the *third* stage one man will fell trees, another prepare the wood, a third will

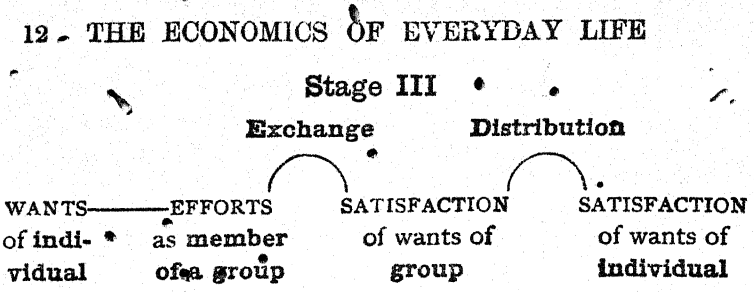
[1] For building his canoe, Hiawatha took the bark from the birch-tree and fastened it over a framework of cedar wood—"like two bended bows together." The whole was bound together with the roots of the larch, and the seams were closed with resin from the fir-tree. Lastly the finished canoe was decorated with hedgehog's quills, stained red and blue and yellow.

"Thus the Birch-Canoe was builded
In the valley, by the river,
In the bosom of the forest;
And the forest's life was in it,
All its mystery and its magic,
All the lightness of the birch-tree,
All the toughness of the cedar,
All the larch's supple sinews;
And it floated on the river
Like a yellow leaf in Autumn
Like a yellow water-lily."

LONGFELLOW'S *Hiawatha*, VII.

perhaps prepare the covering and a fourth may do the actual construction. So far the change has not been very great. Four men had wants, and by combined effort they produced that which would indirectly bring the satisfaction of their wants. But when the canoe is finished, a difficulty arises—whose is the canoe? It belongs doubtless to all four, and when food has been obtained in exchange for it, the food belongs to all four. But how much of the food will each get? Will they share it equally or will some get more than others? It is possible that one may have worked longer than the others, or that for his process more skill was required, or, what is of very great importance, his particular abilities may have been of an unusual character and so his services were in great demand. Before each man can have that which will satisfy his wants, it is evident that a new economic process is needed—that of assigning to each member of the industrial group his particular share of that which is obtained in exchange for the finished product. This is the process known in Economics as **Distribution**, and Distribution is perhaps that division of our subject which leads to the greatest difference of opinion and which requires the most careful thought.

We may now sum up the special features of this **third** stage of development. Men with individual wants to be satisfied unite their efforts, or *co-operate*, as it is called, in the production of some particular thing. But between the effort and the satisfaction of the individual want the gap is now wider. The food which is obtained for the canoe by barter belongs to the industrial group jointly. The share of each member of the group must be determined according to some principle of **distribution** before his effort can actually result in the satisfaction of his wants.



STAGE IV. The Use of Money.

There are two main differences between the type of industrial life just described and that which we may observe going on all round us:—

(1) Our industrial effort is far **more complex.**

(2) We effect exchange by means of **money and credit** instead of by barter.

Let us examine the *former* of these rather more closely. In Stage III we noticed that the combined effort of the group resulted in the turning out of a canoe, but to-day the manufacture of most things involves the combined effort of a great many such groups. Take for example the production of a suit of clothes and notice the number of groups concerned.

1. The wool-growers, probably in Australia.

2. The various groups of people connected with trains, steamers, docks, etc., who helped to bring the wool to this market, and to transfer it from one set of producers to another.

3. Wool merchants.

4. Wool spinners.

5. Woollen cloth makers.

6. Tailors.

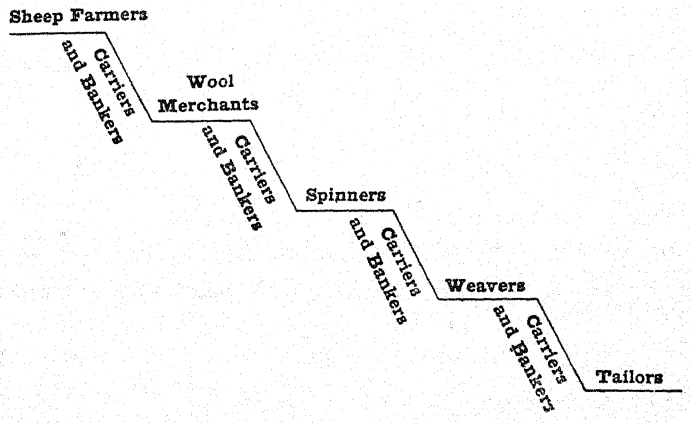
7. Bankers and others whose help was needed in each separate transaction;

to say nothing of the effort of those who supplied tools, etc., to each group.

Thus before the suit of clothes could be offered for sale many groups of workers (many more probably than have been mentioned) had to be employed. The services of each group received a *joint* payment which had to be *distributed* among the members of that group.

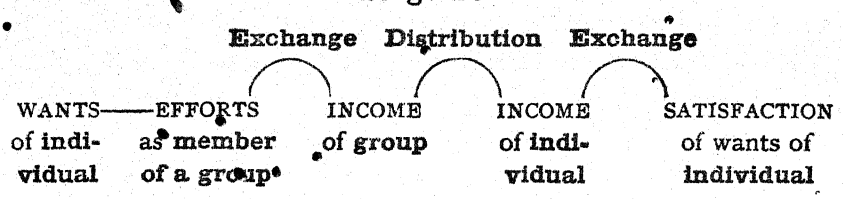
This very **complex effort** can be indicated by the following diagram:—

COMPLEX EFFORT



We must now consider the *second* important point of difference, viz. that the use of **money** or of **credit** (which as we shall see later on is often a substitute for money) takes the place of barter. The earnings of each group are expressed in a **money income**, so also is the share of each individual who expends what he gets in the satisfaction of his wants.

Stage IV



Thus in this *fourth* stage, the stage which every modern industrial society has reached, the gap between the effort and the satisfaction of the want is a very wide one, and at least three bridges are needed to span it, viz. the **sale** of the product, the **distribution** of the proceeds, the **purchase** of what is desired.

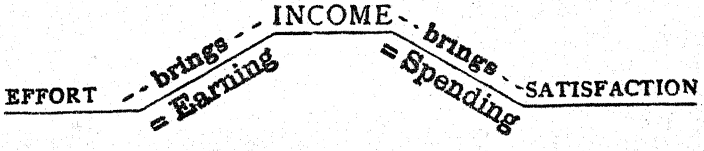
It may perhaps be urged that even under present conditions men may provide directly for some of their wants, e.g. a man may work in his garden or in an allotment and grow vegetables, etc., for the use of his household. But even here the effort is only partially direct. He has doubtless bought the seed or plants as well as the tools with which he works, so this direct effort necessitates some previous indirect effort. Besides, this forms so trifling a part of his activity that it can almost be neglected. Generally speaking it is true to say that in the present stage of economic life man's efforts to supply his wants are in almost every instance indirect[1].

EARNING AND SPENDING.

In this short sketch of the development of economic life an attempt has been made to show that in all the different stages, however much the fact may be disguised, the essential connection between wants, efforts and satisfaction remains unaltered. Wants lead to effort, and effort

[1] To make more clear the connection between the four stages of economic effort a table is inserted at the end of this chapter, repeating the diagrams already given with short notes on each.

brings more or less satisfaction of the wants. But man himself has changed. His wants have become more numerous, more complicated, more refined. He demands far more in the way of food and clothing and shelter; he has, besides, intellectual requirements—learning, art, music, the drama; he needs recreation and amusement. Further, we notice that at each successive stage the gap between effort and satisfaction gets wider and wider and various methods have been employed to bridge the chasm. As things are arranged to-day, very little economic effort is direct—that is to say, the majority of people who want food do not set to work to produce food, but they do various other kinds of work by which they earn an income and out of that income they purchase the food they want. An intermediate step is thus introduced between effort and satisfaction, namely **income**, and this may be represented in the following manner:—



When we talk of *making both ends meet* we are merely putting into a well-known phrase what is suggested by this diagram, viz. that what comes in as the result of a person's efforts is all that can go out in the satisfaction of his wants; and that even if, as sometimes happens, people spend their income (or part of it) before they actually get it, they have to be careful not to spend more than they can be sure of getting. **Income is spending power** and spending power is limited by the size of the income.

We are now in a position to make the following statements (see diagram above):—

(1) **Income** is the central economic fact.

(2) There is a definite relation between

(*a*) the character and duration of the **effort** and the amount of the **income**;

(*b*) the amount of the **income** and the amount of **satisfaction** that can be obtained with it at any given time and place.

The relation between **effort** and **income** depends on

(1) the **nature** of the effort;

(2) its value and **remuneration**;

that between **income** and **satisfaction** on

(1) **how** the income is **used**;

(2) the **prices** of the goods and services obtained in exchange for it.

The study of these relations covers the most important part of our subject and will necessarily include:—

(1) The effort which is the source of Income, or **Production** (BOOK II).

(2) The passing of wealth from hand to hand by means of sale and purchase, or **Exchange** (BOOK III).

(3) The determination of Individual Income, or **Distribution** (BOOK IV).

(4) The spending of the income to obtain the satisfaction of wants, or **Consumption** (BOOK V).

(5) The contribution from individual income to form the income of the state, or **Taxation** (BOOK VI).

(6) The effects on Income of **Trade Unions** and **Co-operative Societies** (BOOK VII)[1].

[1] Books V—VII will be found in Part II.

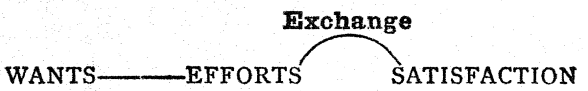
STAGES OF ECONOMIC EFFORT

STAGE I.

WANTS——EFFORTS——SATISFACTION

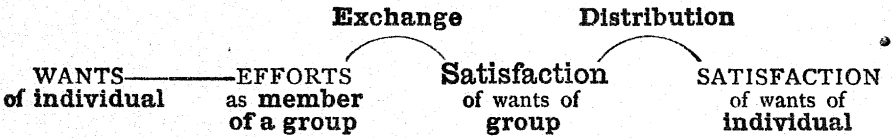
The Effort is **Direct.** It is devoted to the Production of the thing desired.

STAGE II.



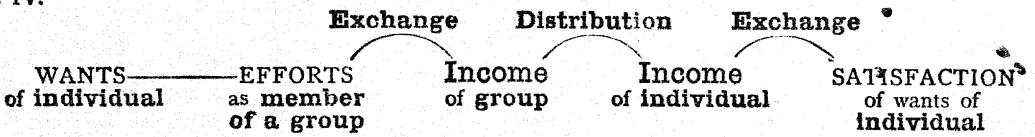
The Effort is **Indirect.** It is devoted to the Production of something which can be **exchanged** for the thing desired.

STAGE III.



The Effort is **Collective** and **Indirect.** The produce resulting from the effort of a group is **exchanged** for the things desired, and these are **distributed** among the members of the group.

STAGE IV.



The Effort is **Collective** and **Doubly Indirect.** The produce resulting from the effort of the group is **exchanged** first for money or its equivalent, and this when **distributed** is again **exchanged** for things that will satisfy the individual wants.

BOOK II

THE SOURCE OF INCOME

CHAPTER III

THE NATURE OF PRODUCTIVE EFFORT

"The production of wealth is but a means to the sustenance of man; to the satisfaction of his wants; and to the development of his activities, physical, mental, and moral." MARSHALL[1].

WEALTH AND WHAT IT IMPLIES.

The first main division of our subject is concerned with that economic effort which, as has already been pointed out, is the **Source of Income**; such effort is directed towards what is generally known as the **Production of Wealth.** Here we have two terms—**production** and **wealth**—both of which need very careful explanation. It will be more convenient to take the latter first.

Nothing seems easier than to give a definition of **wealth.** We constantly use the term, and there is no uncertainty in our minds as to its meaning. But when the word is used in Economics it has a much more restricted sense than it has in ordinary speech. Thus we may say that there are two uses of the term, the popular and the scientific, the one is rather broad and vague, the other is very definite and precise. It will be wise to distinguish carefully between them.

[1] See footnote to page 1.

In ordinary speech wealth is contrasted with poverty. It is another name for riches. A man is said to be wealthy when he has ample means, when he is richly provided with that which will bring him comfort or even luxury. But in the economic sense of the term, both the rich man and the poor man have wealth, the difference being that the rich man has much of it, and the poor man but little. Now, what is it of which *A* has so much and *B* so little? The answer is simple—"Power to satisfy his wants." This power is represented by Income. *A*'s power in this respect is far greater than *B*'s, but *B* must have some power to satisfy his wants or he would starve.

Both *A* and *B* then, from the point of view of the Economist, may be regarded as having wealth. But a further point must be noticed. It was shown in Chapter II that the satisfaction of economic wants comes through effort. Someone, not necessarily the person who gets the satisfaction, must have made the effort. For example, in a lawless condition of society, one man may take by force from another the fruits of his labour; or, as frequently happens, one person may receive a present from another. The effort of one person has resulted in satisfaction to another. Satisfaction which is obtained without effort on anyone's part is outside the sphere of Economics. If, therefore, anything is to be regarded as **wealth** two conditions must be fulfilled:—

(1) it must have **power to satisfy a want,**

(2) it must be **the result of effort.**

The air we breathe satisfies a want but we can obtain it without effort, it can be had as we say for the wishing, therefore it is not to be regarded as wealth. But to the diver in the hold of the wreck, air is wealth, for effort is needed to keep him supplied with it. Again what is wealth

to one person is not necessarily wealth to another, and what is wealth at one time and place may not be wealth at another. A thing does not constitute wealth merely because it is the result of effort but because in addition it has power to satisfy the want of some particular person. A piano would satisfy no want of a savage, although it must have taken a great deal of effort to make it and to carry it to the island where he lived. To him therefore it is not wealth. But if the savage recognised the fact that he could exchange the piano with a trader for something else he really wanted, then the piano would be wealth to him because it could bring, though indirectly, the satisfaction of his wants. Or again a house may have taken a long time to build and may have been built with very expensive materials, but if it is in so undesirable a situation or is so uncomfortable that no one is willing to live in it, that house cannot be regarded as wealth. Similarly, sand may be wealth in the builder's yard, but it is not wealth in the middle of the Sahara; ice is wealth to a fishmonger in the summer, but it is not wealth to the Esquimaux who are continually surrounded by it. The essential fact is that wealth cannot be regarded as something by itself but only in its relation to man and his wants.

What has been said about the economic use of the term wealth may now be summed up in the following statement:—**Everything is wealth to us which has power to satisfy our wants, and which cannot be obtained without effort.** Popularly the idea of wealth is connected with abundance; with a plentiful supply of the good things of life, with a large income. Economically it applies to everything that can satisfy man's want, provided that it cannot be obtained without giving something for it in the form of labour or of goods.

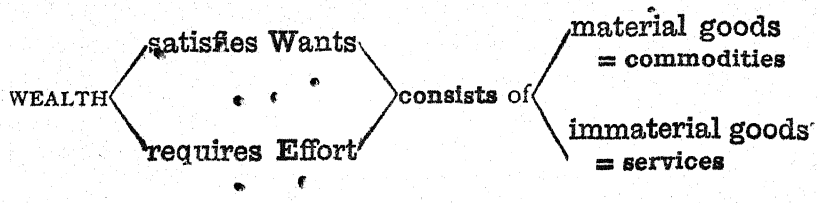
Economic writers have differed very much as to what should be included under the term *wealth*. Some take

a very narrow view. They admit that wealth implies power to satisfy wants and that wealth is the result of effort, but they only allow one kind of effort, viz. that which results in material objects or, to use the words of Adam Smith, "vendible commodities." According to these writers therefore the term wealth is limited to things that we can perceive by our senses or that we can store up or pass on to others. But if we go back to our definition we shall see that wealth means a great deal more than this—"Everything which has power to satisfy want and which cannot be obtained without effort." Let us think of some of the things people want and in exchange for which they must give a part of their time or a part of their income, in other words, for which they must make some effort. They must pay for the house which shelters them, for the clothes they wear, for the food they eat—all these are **material** goods[1]. They must also pay for the various kinds of services—of soldiers and sailors who protect them, of actors and singers who amuse or entertain them, of domestic servants who cook for them and wait on them, of railway officials, of cabdrivers, etc., who make it possible for them to travel from one place to another—and all these services are **immaterial** goods. It is evident therefore that the things that can satisfy our wants and for which we must make some effort are of two kinds, material and immaterial, and that, according to our definition, wealth includes them both, services as well as commodities. The accompanying

[1] That which can satisfy a want is in the language of Economics called a "good." Material goods are of two kinds—(i) those which can only give a passing satisfaction, such as food and drink, (ii) those which can give a continuous satisfaction lasting over a much longer period, such as houses and clothes. The former are called **perishable** goods, the latter, **durable** goods.

Material goods may also be classified according to the use to which they are put. If, like everything we eat or wear, they are used for the direct satisfaction of wants, they are called **Consumption** goods, but if, like machines, tools, or raw material, they are used in the production of other goods and so satisfy wants indirectly, they are called **Production** goods.

diagram will illustrate this conception of wealth and indicate the meaning which will be attached to the term in the following pages.



THE MEANING OF PRODUCTION.

We have considered the meaning of the term **wealth**, now we must consider the meaning of **production.** Production may be defined as the application of effort to the satisfying of wants; it is that form of activity which results in wealth. Production only takes place because there are wants to be satisfied; we produce because we want to consume. If little is produced, few wants can be satisfied; if much is produced, many wants can be satisfied. It is very easy, however, to attach a wrong meaning to the word *produced* and so it would be wise to take one or two examples in order to make this quite clear.

When the savage procured the meat he wanted for his food, his effort was an act of *production.* If he brought home an ample supply, he produced much, but if he brought home less than was required to satisfy his hunger we may say that he produced little. Or take the carpenter, according to the number of articles he was able to complete within a certain time, we might say that he produced little or much. But what was it that the savage and the carpenter produced? The former did not create the meat, because the animal was there before. His effort consisted in killing the animal, bringing it home, and preparing it for food. The animal roaming wild in the wood could not satisfy his hunger—it must be in a form and in a place in

which he can utilize it; he must have it when, where, and how he needs it. Similarly with the carpenter, the wood was there before and so were the necessary tools, but with the help of the tools he has changed the form of the wood, and now there is a table or a cupboard which can satisfy his own wants or those of his customers.

In each case there has been *productive effort* and by this effort new utilities—i.e. new powers to satisfy wants—have been produced. **The Production of Wealth**, therefore, **does not mean the creation of that which satisfies the want but the creation of additional capacity for satisfying want.** To the savage the meat had more utility than the wild animal, to the carpenter the table had more utility than the wood—what each has produced is the difference between the utility before and the utility after the effort in question was made. This can be expressed in the form of a subtraction sum.

Utility of meat minus utility of animal	=	**wealth produced by effort of savage.**
Utility of table minus utility of wood, etc.	=	**wealth produced by effort of carpenter with help of tools**[1].

A man's productive effort is sometimes spoken of as **labour,** but now-a-days the term *labour* is generally confined to a particular kind of effort—viz. the effort exerted by the working man. It has seemed better, therefore, to use the term *effort* to indicate the work performed by human beings in general to secure the satisfaction of their wants. That is to say the term *effort* may be applied alike to the work of the manufacturer and the farmer, the soldier and the sailor, the lawyer and the doctor, the

[1] The wear and tear of the tools is for convenience disregarded.

bricklayer and the miner, the laundress, the factory girl and the messenger boy.

The term *production* must not be used in too narrow a sense. (1) It covers the whole effort from start to finish—from the growing of the raw material to the delivery to the consumer of the finished article. New utilities have been added at every stage, until the work is completed and the want is satisfied which was the original cause of the productive effort. (2) It covers the services rendered by all who have in any way contributed to the final result—the services, not only of those whom we are accustomed to think of as workers and whom we can see daily engaged in office or workshop, but also of those who by placing their wealth, whether it be land or capital, at the disposal of the workers, are themselves contributing in no small degree to the satisfaction of human wants.

Productive and Unproductive Labour.

The earlier economists such as *Adam Smith* and *John Stuart Mill* made a great deal of the distinction between what they called productive and unproductive labour, whereas to-day the distinction is not considered of any importance whatever.

How can we account for this change of view? It is mainly a question of terms. According to these writers *productive* labour results in wealth while *unproductive* labour does not; but the term wealth is by them confined to material objects, therefore all effort (such as that of the lawyer, soldier, domestic servant, etc.) which is not embodied in material objects is unproductive.

Our definition of wealth on the other hand is much broader as we have already seen—it covers the results of every kind of effort that helps to satisfy wants.

All economic effort therefore is, in intention, *productive*, because it aims at satisfying wants, and it is only

unproductive when it fails altogether of its object. What is of real importance to us to-day is—not whether the effort is productive or unproductive—but whether it is more or less productive, i.e. whether the effort expended results in the production of a large or a small amount of wealth. If we want to increase the wealth of the country at large we must make our economic effort as productive as possible, that is, we must seek to get the greatest amount of satisfaction with the least possible effort.

Different degrees of productivity are noticeable everywhere. One savage brings home more food than others, one artisan turns out more goods than others, one manufacturer or trader is more successful than others, the industry of one country is more flourishing than that of another. All these are differences in the productivity of effort, and these differences play an important part in the social and economic conditions of individuals and of nations.

The Forms of Productive Effort.

It has been noticed[1] that the great feature of industrial effort under modern conditions is its complex character, and that the individual want can only be satisfied by the successive efforts of many groups of workers. In studying therefore the nature of productive effort, it is necessary to consider it from three points of view:—

(1) The combined productive effort of **many groups.**

(2) The productive effort of **a particular group.**

(3) The productive effort of **an individual worker.**

I. The Combined Productive Effort of Many Groups.

By this is meant the sum of all the efforts necessary before the want can be satisfied. The main thing to

[1] See Stage IV on page 18.

notice in this connection is that there is no deliberate co-operation on the part of the various groups making this combined effort. There is no organizer or director of the whole assigning to each group any particular share. It is a division of labour, but not a division resulting from any definite plan or scheme. The example given on page 13 will afford us a suitable illustration of this. In that example the united efforts of various groups resulted in a suit of clothes. The wool growers had no idea of joining with merchants, spinners, weavers or tailors in producing the final result. To each group its own productive act was final. Each business undertaking realized its own income which provided the incomes of all workers in it. It was enough for each group that its goods or services were in demand. The main consideration with the growers was that merchants would buy their wool, with the merchants that spinners would buy the wool of them, and so on. The effort of each group was intended to satisfy the wants of the individual workers in that group, and each had found by experience that in this way the income could best be obtained. Each group by satisfying the demands of the group next beyond it was really satisfying its own. Each group therefore with regard to the final result works independently of the others and without apparently realizing that its effort is only a part of a much wider effort, that its effort will not really be complete till other workers in various parts of the world have done their share, and the finished article is finally in the hands of the consumer.

II. Productive Effort of a Single Group.

The great feature of the productive effort of an industrial group is its **organization.** The Division of Labour is arranged on a definite plan, the co-operation of all the workers in the group is deliberate. This

constitutes a very important point of difference between the effort of a single group and the combined effort just described.

Of the industrial group there are many types. One group may be engaged in what is called *extractive* industry, e.g. **farming** or **mining**. The effort consists in raising from the soil or obtaining from beneath the surface of the earth various forms of vegetable or mineral wealth. Another group may be engaged in some **manufacture**, as for example that of cotton cloth or of china. A third may devote its energies to **transport**—by road, or rail, or sea. A fourth may be engaged in **commerce**, in transferring through the agency of purchase and sale the raw material from the grower to the manufacturer, or the finished article from the manufacturer to the retailer. A fifth may devote itself to **financial** matters, to enabling buyers and sellers often at a great distance from one another to settle their money affairs without trouble and with comparatively little expense. A sixth may be engaged in **retail trade**, buying goods in large quantities and selling them in small parcels to suit the needs of particular customers, or as in the case of the tailor, giving the final form to the goods themselves according to individual requirements. These groups will differ very much in size and in composition. A mine or a factory may give employment to a board of directors, a manager, a staff of clerks and thousands of other workers; a small grocer's business on the other hand may only give occupation to the grocer himself, an assistant and an errand boy.

All these forms of productive effort have certain features in common:—

(1) The group in every case consists of all (employers and employed, landlord and capitalist) who look to the particular undertaking for the income which is the reward of the services rendered.

(2) In every group there is some directing and controlling power which co-ordinates the efforts of the individual members of the group and directs them towards a definite goal.

III. Productive Effort of the Individual.

Although it is only through the effort of the group that the goods are produced which when sold provide the income, yet it is possible and desirable to think also of each member of the group as an individual. The output is the result of the joint effort but to the quality and quantity of that output each individual has contributed. The prosperity of the business is affected by the character of each individual's effort and, though the income of the individual worker is, as a consequence of Trade Union policy, far more influenced by the prosperity of the trade as a whole than by that of the business in which he himself is engaged, yet it is to a certain extent and in the long run also true to say that the prosperity of the individual worker is affected by that of the industrial group to which he belongs.

Two features of the individual's work should be carefully noticed:—

1. The dependence of one member on another. The employer is dependent on the efforts of the employed, the employed on the organizing capacity of the employer. Further, each individual worker has his own job, but he cannot do it if the material is not duly passed on to him in a state ready for him to begin work on it. Take an example from a chocolate factory. The girl who fashions chocolate creams cannot make more than she has the materials for, and the man who passes these on to her gets them from someone who performs some earlier task of mixing. Someone takes the creams from the girl who has made them and they are passed on from hand to hand until they are neatly packed in boxes, tied up with ribbon,

packed in large cases and finally despatched. From start to finish each worker has been dependent on the work of others.

2. The work of each is incomplete; it is a contribution to the general result; no one person more than another can say of the finished article that it is his own work. Let us take an example from the furnaces used in the manufacture of steel tubes. The final result is due to the joint effort of many. The man who dexterously rushes the sheet of iron into the furnace and the man at the other end who withdraws it when it is heated to the precise point required cannot point to anything at the end of the day and say, "I made this." He has helped to make a steel tube and so have many others. He has completed nothing.

It has been shown that the success of one man's effort is affected by the effort of other members of his group, and it could also be shown (1) that the success of any particular group is affected by the efforts of the other groups taking part in the combined effort, (2) that the prosperity of individuals and groups is affected by the general prosperity of the community. An example will make this clearer. Let us go back to the familiar one of the suit of clothes. When there is general prosperity more suits of clothes are ordered, this will make more work for tailors, which will lead to larger orders being sent to cloth makers who will need more woollen yarn; this will lead the spinners to require more from the merchants, who will want to buy more from the growers. But if, for example, the growers had no more wool, wool would probably be dearer and that would affect all the successive groups who pass the wool through its various stages.

A word must be said in conclusion about the individual worker who is not a member of such an industrial group, but who, like the mediaeval craftsman, works independently

and supplies his own customers with what they need. There are still many such, but their work can hardly be regarded as typical of modern productive effort. The small boot-maker or the jobbing gardener may be taken as examples of this class, as also may many members of the learned professions such as doctors and barristers. Their effort can be measured without reference to the effort of others, and their income follows as a direct consequence of their own skill and industry.

CHAPTER IV

THE REQUIREMENTS OF PRODUCTIVE EFFORT

"Besides the primary and universal requisites of production, labour and natural agents, there is another requisite...namely, a stock, previously accumulated, of the products of former labour." J. S. MILL.

IT has been shown that the satisfaction of economic wants comes through effort, but it is very evident that more is wanted than the mere willingness or ability to do what is required. The savage wants food, but three things are necessary or he will not get it:—(1) if he lives on the flesh of birds or of animals, the birds and animals must be within his reach, (2) he must make the required effort, (3) he must be provided with the weapons or implements

[1] John Stuart Mill, the most famous of English classical economists, was born in London, 1806. His father James Mill is also known as an economist and as the author of a *History of British India*. As a child J. S. Mill was extremely precocious. He began Greek at three, studied logic at 12, and at 13 went through "a complete course of Political Economy." He was a great thinker and writer in many branches of science, his chief works being—*A System of Logic*, *Principles of Political Economy*, and treatises *On Liberty*, *On Representative Government*, etc. He died 1873.

of the chase. And similarly in another stage of industrial society: the farmer must have soil to cultivate, seed to sow, ploughs and other implements to use, or he cannot make the effort necessary to provide himself and others with bread.

What is true of direct effort is true also of indirect. The effort made may be of many different kinds but it will in most cases be found that a want cannot be satisfied without (1) the existence of some natural objects or powers, (2) the application of some personal strength or skill, (3) the use of some artificial aids such as tools, materials, etc. I have said in *most* cases because, as before suggested, there are two classes of wants, and two kinds of wealth which can satisfy them, viz. material and immaterial. Now it is evident that the three requirements just mentioned are only necessary for the effort which results in material objects; and that they will not all be necessary for the effort which results in immaterial forms of wealth such as services. For example, *A* may earn his living as a public singer, *B* as a doctor, *C* as a messenger. *A*, *B* and *C* are making efforts which depend almost entirely on natural gifts and personal effort and which need very little if anything in the way of artificial aids. On the other hand it must be remembered that *A*, *B* and *C* all have material wants such as food and clothing and that though their own effort may have been made without external help, yet the efforts made by others to supply their wants needed all three of the requirements.

Speaking generally therefore we may say that there are **three requirements**[1] **of productive effort**, viz.:—

(1) The **Natural.** Gifts of Nature, both objects and forces.

[1] Most economists apply the terms **Land, Labour,** and **Capital** to these requirements of productive effort and speak of them as the **Factors** of **Production.**

(2) The **Personal.** Man's own energy and skill.

(3) The **Artificial.** That which man has made or has set aside to assist him in his effort.

Wants leading to **Efforts** requiring **Natural forces** **Personal activity** **Artificial aids** resulting in **Satisfaction**

In all the four stages of economic activity described in Chapter II, these three requirements of productive effort are equally indispensable though not perhaps of equal importance[1]. But the change in the character of the effort which has taken place in Stages III and IV gives rise to **two additional requirements** which are in reality two other forms of **personal activity.** When the effort is made by an industrial group and when industrial undertakings are on a larger scale a new factor is introduced, viz. **Business Organization.** And, further, when the market instead of being purely local and certain becomes world-wide and uncertain, when instead of supplying the wants of a few people in his own neighbourhood the producer seeks to supply the wants of people in many and distant lands, business becomes to a greater or less extent speculative, and **Risk-taking** or **Enterprise** becomes another requirement of Industrial Effort.

From what has now been said about industrial effort, we are in a position to make the following statements:—

(1) Before a man can satisfy his economic wants he must make an effort—he must use his powers of mind and body— = **Labour.**

(2) Where the effort is made by an industrial group that effort must be organized if it is to obtain satisfactory results— = **Organization.**

[1] The comparative importance of the requirements is discussed at the end of this Chapter.

(3) To start and to carry on a business undertaking involves risk. It may result in profit or in loss. This risk must be taken by some person or persons— = **Enterprise.**

(4) Man in his effort utilizes Natural Objects and Natural Forces— = **Gifts of Nature.**

(5) Most forms of effort require (*a*) tools or machines, and (*b*) materials. Moreover, production takes time, and until the work is completed and sold those taking part in it are being supported by results of past labour— = **Capital.**

The requirements may also be classified under two heads :—

A. **Forms of Human Activity.**

B. **External Aids.**

A. **Human Activity.**	B. **External Aids.**
(1) **Labour.**	(4) **Gifts of Nature.**
(2) **Organization.**	(5) **Capital.**
(3) **Enterprise.**	

Labour, Organization and Enterprise are clearly marked off from the external aids—the Gifts of Nature and Capital, inasmuch as they are forms of human activity. Man is a consumer as well as a producer—his wants supply the motive for his efforts. He produces in order that his wants may be satisfied. The wants and the effort react on one another. The greater a man's services to production the more is he able to consume (i.e. to apply to the satisfaction of his wants), and the converse is often true, viz. that the higher a man's standard of living, the more capable is he of rendering efficient service.

Each of the requirements must now be considered more in detail and the distinguishing characteristics of each noted.

A. Forms of Human Activity.

1. **Labour.** This term is frequently used as if it were equivalent to man's economic effort in general, and in this sense it is applied to the part played by him in the Production of Wealth. Such effort is of many kinds—there is the effort of the employer and that of the employed, the effort of the brain worker and that of the artisan. There is unskilled effort which requires mere physical strength, and there is skilled effort which requires thought, knowledge and dexterity.

Many on the other hand speak of *Labour* as if it applied only to the effort of the manual worker—they connect *Labour* with *Labourer.* There are others again who would regard *Labour* as the industrial force antagonistic to *Capital.*

The first of these uses of the term is too wide, the others are too narrow. In Economics we use the term in a very special sense and it is important to notice this so as to avoid possible confusion. For convenience, we may regard all workers—no matter what their station in life, or the particular trade or profession they follow—as belonging to one of two classes:—

Class I. Associated Producers—persons working together in organized industrial groups such as would be needed to carry on the business of a factory, a bank, or a shop. Some of the workers in such a group will be employers, the rest will be employees.

Class II. Independent Producers—such as doctors, barristers, or skilled workmen who themselves make what is ordered by their customers. Each member of this class may be described as being "his own master."

Now we are in a position to define *Labour* in its strict economic sense. The term *Labour* in Economics may be said to cover the efforts made to secure the satisfaction of

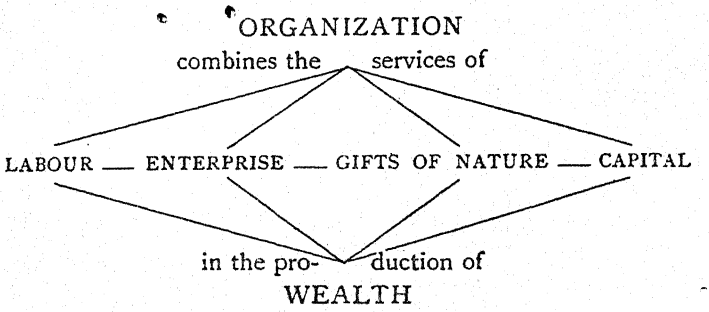
their wants by all members of Class II and by the employed members of Class I.

2. **Organization.** It is only in recent times that economic writers have recognised this as one of the requirements of productive effort. With the increased use of machinery and with the increased size and complexity of the industrial group, it has become evident that organization plays a very important part and that it must be treated as something quite distinct from the efforts it co-ordinates and directs. Organization may be regarded as the work of the employers. In a private business the organization is in the hands of the heads of the firm; in a Joint Stock Company it is in the hands of the Directors who usually act through a General Manager. The employed members of the group are concerned each with his or her particular task, but the Business Organizer is concerned with the productive effort as a whole, and he alone can regulate the relation of the various parts to that whole. Like a general he marshals the forces under his command. He selects the situation best suited to the industry in question. He decides what shall be the character and extent of the buildings, the nature of the plant, the type of the machinery, the quality of the raw material, the patterns of the goods, the number of workers of the various grades and capacities. Under his control are the Natural Agents, the Labour, and the Capital employed in the undertaking; the success of the enterprise depends on his skill, judgment and foresight[1].

3. **Enterprise.** The taking of the risks incidental to modern industry and trade may well be regarded as a separate service to Production. It is commonly supposed that this is merely one of the functions of the business

[1] The part played by Organization in the Production of Wealth is shown in the diagram on page 36.

organizer and that it may be included therefore under the term **Organization.** In a private business, it is true, the heads of the firm often render the threefold service of business organization, of capital, and of enterprise. But this is by no means the only type of business, and, as there are businesses in which the risks are not taken by the organizers, enterprise and organization must be kept distinct.



As a matter of fact **Enterprise** is a service which may be rendered by any section of those taking part in the productive effort. For example:—

(1) In a *Private Business*, as has just been shown, the risks are taken by the **organizers.**

(2) In a *Joint Stock Company* the risks are taken by the **shareholders**—that is by the **capitalists**—and not by the business organizer[1].

(3) In a Society of *Co-operative Producers* the risks are taken by the **workers** themselves.

[1] When we see the word *Limited* after the name of a Company—and the Limited Liability Company is nowadays the type of business enterprise—we are reminded that the risks of the concern are not being taken by those who manage or direct it, but by the shareholders (that is, by those who have provided the capital), and that the risk of each shareholder is limited to the amount of capital he or she has subscribed.

Enough has now been said to show:—

(*a*) That Enterprise is a requirement of productive effort.

(*b*) That Enterprise should be considered as something quite distinct from Organization, Capital or Labour.

B. EXTERNAL AIDS.

4. **Gifts of Nature.** These are generally summed up in the one word **Land**[1]. But this is not a very satisfactory term, for it does not in any way suggest the real character of the part played by Nature in productive effort. The Land is one of the most important of natural agents, but it is only one of many. In this book therefore the term *Gifts of Nature* is used instead as being more descriptive and more comprehensive.

The *Gifts of Nature* are as various as they are widespread. Nature provides:—

(1) The **soil** and all its properties.

(2) Vast stores of **mineral wealth.**

(3) The **air** we breathe.

(4) The **climatic conditions** which assist or hinder man's economic efforts.

(5) The various forms of **animal** and **vegetable** life, each endowed with powers of reproduction.

(6) **Forces** of various kinds, such as light and heat, wind and water, steam and electricity.

These are some of Nature's Gifts and **man is** constantly discovering and utilizing new ones. To Nature's bounty man owes the very conditions of life, the objects on which his energy is expended, the forces which he sets in motion,

[1] "By Land is meant the material and the forces which Nature gives freely for man's aid, in land and water, in air and light and heat." Marshall, *Principles of Economics.*

and the powers of hand and brain which give him mastery over them.

5. **Capital.** The term *Capital* will at the outset require some explanation. When a man has obtained wealth he can do one of two things with it—either he can use it in the satisfaction of his immediate wants, which is called **spending** it; or he can put it aside with the intention of satisfying his wants at some future time, which is called **saving** it. What a man saves he either uses himself or lets other people use in such a way as to bring him in an income[1]. Wealth devoted to some purpose with the intention of obtaining an income from it is called *Capital.* Thus a man's *capital* is part of his wealth, and the same things may be called *wealth* or *capital* according to the use to which they are put. Take, for example, a motor car. If its owner uses it for pleasure we should say it is *wealth* to him, but if he uses it as a doctor would for professional purposes, it is a form of *capital.* It helps him to make a larger income because with it he can see a much larger number of patients.

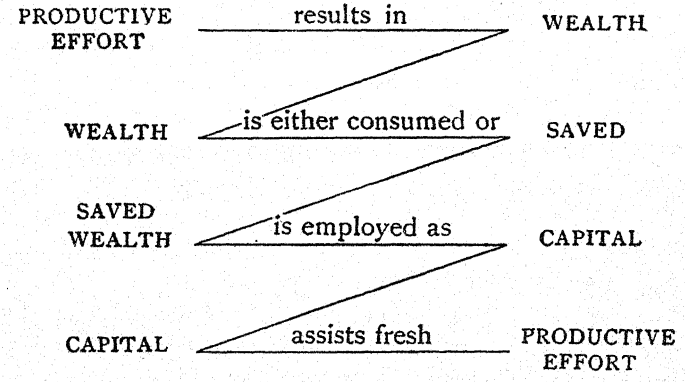
Capital may be looked at from two points of view. To the individual owner, the capitalist as he is called, it is a means of getting an income. But to the man who uses it in his business as well as to society at large it is a requirement of productive effort, a means of increasing enormously the result of man's economic activity.

The capital of a particular company or business is always expressed in terms of money, but we must not suppose that it is in the form of money. For example, the capital of a certain boot factory is said to be £100,000. This capital really consists of buildings, plant, machinery, patent rights, stores of leather and other material, a stock of finished boots and shoes waiting to be sold, a certain amount of cash sufficient for current expenses, etc., etc.

[1] **Mere hoarding** is not **saving** in the economic sense of the term.

These forms of capital are generally grouped under two heads—**Fixed** and **Circulating.** Capital which is capable of rendering repeated services is called **Fixed Capital**, that which can only perform its service once is called **Circulating.** Under the former head come the buildings, plant, machinery and patent rights; under the latter, raw material, finished goods and money[1].

It is usual to speak of Nature's Gifts and Human Activity as primary factors of Production and of Capital as a secondary or derivative one. That is to say, the first two are not the result of previous effort or former production, but Capital would not have existed at all if there had not been some wealth produced out of which it could have been saved. Capital plays a double part. (1) It is *a part of wealth* and therefore the **result** of productive effort, (2) it is *a factor in production* and therefore **a requirement** of productive effort.



[1] It might be noticed that money would be circulating capital to an individual producer because it can only be used once by him in making a purchase, and that done it has taken for him another form, viz. that of the raw material or other article purchased. But to society at large money seems to be fixed capital because it is very durable, and the same coin can be used over and over again; in fact from this point of view money seems to be like a great machine which facilitates exchange of goods and services, but which wears out very slowly in the process.

Relative Importance of the Requirements.

An attempt is sometimes made to compare the relative importance of the requirements just described. Some maintain that *Labour* is all important, others will put *Capital* first. Some have emphasized the part played by *Nature*, others, that played by the *Business Organizer*. Where all are indispensable it is extremely difficult to put one before another, but it might be suggested that at different times and at different stages of industrial development, different requirements have had special prominence. In a primitive state of society, *Nature's Gifts* are everything. Where Nature is generous, men are in comfort, where she is niggardly they suffer want and hardship. This affects their numbers and their habits. In the desert for example we find nomadic tribes—small as regards numbers and very scattered. They wander from one oasis to another; they are herdsmen and not agriculturists. But, under more favourable circumstances, man developed a power to control Nature and her forces, and *Labour* came to the front. Later still, with the introduction of machinery and steam power, *Capital* challenged the supremacy of *Labour*. In recent times, with the rise of large business undertakings, *Organization* of a high order has become a necessary condition of success, and it begins to take a place hardly inferior to that occupied by *Labour* and *Capital*.

A further point of difficulty is this. It is contended by some that human beings alone are capable of effort and that therefore Nature's Gifts and Capital are not to be considered as taking any part in Production. But it must not be forgotten that in a state of society in which there is private property in land, and in which individuals through saving have acquired capital, the owners of such Gifts of Nature and Capital, by placing them at the disposal of producers, may be said to take part in the productive effort.

In conclusion, the productive effort is a collective one. It embraces the services rendered by employers and employed, by landlords, by capitalists and by those who undertake the risks. Under skilled organization numbers of workers, supplied with raw material and with mechanical appliances, direct their energies to the production of that which will satisfy the wants of their fellow men and so through the income they receive, indirectly satisfy their own.

PRODUCTIVE EFFORT

embraces the

SERVICES

of

GIFTS OF NATURE	**rendered by**		OWNERS OF LAND and of other **Natural Resources**
LABOUR	"	"	EMPLOYED WORKERS in a group or by **Independent Workers**
ORGANIZATION	"	"	EMPLOYERS and **Directors**
ENTERPRISE	"	"	SHAREHOLDERS or other **Capitalists**
CAPITAL	"	"	CAPITALISTS

CHAPTER V

PRODUCTIVE EFFICIENCY

"Energy and efficiency in work and enterprise in the formation and employment of capital are the two factors on which material progress mainly depends." CUNNINGHAM[1].

HAVING considered the nature and requirements of productive effort we must now turn to another aspect of the question, viz. the results of such effort. It is not enough to know what economic effort is and to understand the part played in it by the various factors; we must go further and seek to find out what conditions are most favourable to its success. The effort was made for a definite purpose: viz. the satisfaction of wants. What relation is there, we may ask, between the effort and the amount of satisfaction obtained? The object of all effort is to secure the greatest possible amount of satisfaction, or, as some writers have expressed it, to secure the maximum of satisfaction with the minimum of trouble. But, as has already been mentioned more than once, the effort is indirect, it does not result in the production of that which will satisfy the particular want. The people around us are engaged in various forms of effort all designed to satisfy the wants of others. In this way they earn their living, they get their income; and this income they will spend in purchasing the commodities or in paying for the services which will give them the desired satisfaction. The amount of satisfaction, therefore, obtained as the result of any given effort, depends not only on the work done but also on the willingness of others to pay for it; in other words, what a man gets by his labour depends on the market there is for what he produces.

[1] Rev. W. Cunningham, D.D., Archdeacon of Ely, author of *Growth of English Industry and Commerce*, etc., etc.

In estimating then the **relation of effort to satisfaction**, four things must be taken into account:—

(1) The **quantity** and **quality** of the goods produced or of the services rendered.

(2) The **market value** of such goods or services, which affects the income of the group as a whole.

(3) The **share** of this joint income which goes to the individual worker.

(4) The **prices** of those goods and services on which he expends his income.

One of the most obvious facts of the economic life going on around us is that all effort is not equally productive. One tradesman succeeds and another fails; one manufacturer makes large profits and another makes hardly any; one company pays a good dividend and another a very poor one. To explain fully the causes of this difference would require an intimate knowledge of the circumstances of each individual business; but for our purpose it will be sufficient to consider the conditions which affect the productivity of effort in general.

The conditions of productivity may be grouped under two heads, **internal** and **external**. *Internal* conditions have to do with the productive effort itself in the factory or on the farm, in short, with the **way the work is done**. *External* conditions affect mainly the **marketing** of the produce, and the question whether the price realized is sufficient to adequately remunerate the efforts of the various members of the industrial group.

1. The principal *external* conditions are:—

(1) The locality of the industry and its distance from the market.

(2) The conditions prevailing in the market.

(3) The efficiency of the other productive groups with which it is connected.

(4) The competition of other producers.

(5) The economic policy of the government.

One or two examples will help to make this clear. We may say that wheat-growing in some particular place is unproductive. The farmer may be a very capable man and the soil may be exceedingly fertile. Owing to these internal conditions the crop may be a very heavy one and comparatively little effort has produced a large amount of wheat. But the productivity of the effort expended on wheat growing is not only measured by the number of bushels obtained; it depends also on what the wheat will fetch when sold. Now if this land is situated in a remote spot, at some distance from any large market; if the place is badly served by railways or steamers; if the banking system of that country is undeveloped; if when the wheat gets to the market that market is already overstocked and the price of wheat low; if some government regulation such as a special tax imposes some extra burden on the wheat grower; then so much has to be deducted from the price of the wheat for the cost of marketing it that very little may be left for the grower and in spite of the abundant harvest his efforts will prove to have been to a certain extent unproductive.

Again—one very frequently hears the complaint that fruit or vegetable farming does not pay. The cost of carriage, the regulations of the market, the over-supply or glut of a perishable article[1], act against the industry of the grower and again his effort is less productive than he had hoped and expected.

[1] A particular crop such as strawberries, ripens in the different districts at very much the same time, so that when strawberries are "in season" they must often be sold at a very low price to get rid of them while they are good.

All questions connected with sale and purchase and with the determination of the shares of individual producers will be taken up in later chapters, here we must only concern ourselves with *the first step towards satisfaction*, viz. the act of production.

2. The *internal* conditions of successful industrial effort may be summed up in one word—**Efficiency.** We may improve our means of transport, we may have a most enlightened commercial policy, but if there is not industrial efficiency our efforts are not likely to be very successful.

The great question for every individual producer, for every industrial group and for the nation at large, is—How may the requirements of industrial effort, individually and in combination, be made most efficient? An answer to this will best be found by examining in turn the conditions of efficiency of the Gifts of Nature, of Labour and of Capital.

To begin with the **Gifts of Nature** of which it will be sufficient to take two examples, Land and Water-power.

Land. The productivity of land depends on three sets of conditions :—

(*a*) The **Natural,** e.g. fertility, climate, etc.

(*b*) The **Social,** e.g. situation relatively to centres of population.

(*c*) The **Economic,** e.g. the way in which Capital and Labour are applied to it.

Each of these requires explanation.

The **Natural** conditions of productivity are easily called to mind. Of these the chief are the character of the soil and of the subsoil, the climate, the aspect, the minerals that lie hidden underground.

The **Social** conditions include not merely the situation with regard to the market, but also the conditions of transport and communication which facilitate the conveyance of

goods from one place to another. Land, we say, is well situated if its produce can be easily and cheaply brought to market. These social conditions are continually changing. To-day there may be parts of the Canadian Middle West where a farmer can only just live by his work because of the difficulty of marketing his produce. But an industrial centre springs up in his neighbourhood, or an extension of the railway passes near his farm, and as a result of this social advance, working on his land becomes more profitable; the land, we say, is now more productive.

The **Economic** conditions are connected with the application to land of Capital and Labour.

Natural conditions are not to be regarded as fixed or unalterable, for man has found out means of modifying them. The properties of the soil can be changed by various kinds of dressing, land too marshy can be drained and land too dry can be irrigated, climate can be modified by the planting of trees, by glass houses and other forms of shelter, by the application of heat, etc., distance from sea can be got over by the digging of canals. But it must be remembered that this modification is brought about by Labour and Capital, and though we speak of the land as becoming more productive, the increased productivity is not the gift of Nature, it is the direct result of productive effort.

Examples of such change of natural conditions are not difficult to find. The *Haarlem Meer* in Holland was at one time, as the name suggests, a wide expanse of water; now it is an extremely fertile district famous for its production of bulbs. The *Fen District* in the Eastern Counties of England was once practically useless from an economic point of view; now it is drained and is well known for its magnificent pasturage. The *Eastern parts of Belgium* were at one time little more than a sandy waste. Now they have been converted into an agricultural district where

cultivation of a most intensive character is carried on[1]. The application of Labour and Capital has entirely modified the original conditions and in places where production was once impossible, industry and prosperity now prevail.

Before the middle of the 18th century very little had been done in England in the way of applying Capital to the cultivation of the land, but about that time changes began to take place of so far-reaching a character as to have earned the name of "The Agrarian Revolution," in the course of which an enormous advance was made in agricultural methods. Under the old conditions farming was for the most part carried on as a means of obtaining the necessaries of life, under the new conditions it became a business enterprise carried on with a view to making a profit. The new methods—rotation of crops, stall-feeding, etc., made at first very little progress because of the *Open-field* System which then prevailed over the greater part of the country. Under this system the arable land of the village was divided into three large fields, two of which were cultivated each year, the third remaining fallow. These fields were subdivided into a very large number of acre or half acre strips separated from one another by a narrow turf bank or "baulk." The strips cultivated by a particular farmer did not lie next to one another but were scattered over the three fields. After harvest the cattle were turned on to the stubble. Each farmer had also the right to a certain portion of the pasture land, and he had certain grazing rights on the waste. Under such a system all progress was impossible. Everyone had to do

[1] "Man, not nature, has given to the Belgian soil its present productivity... the small and naturally unfertile province of West Flanders not only grows the food of its 580 inhabitants on the square mile but exports agricultural produce to the value of 25*s.* per head of its population." Prince Kropotkin, *Fields, Factories and Workshops* (1898).

as his neighbours did: raise the same crops, plough, sow and reap at a given time.

Before new methods could be introduced and Capital applied to the land, the fields needed to be *enclosed*. That is to say, each farmer must have his farm in one compact whole, properly fenced off from his neighbours. He would then be free to follow the system of cultivation he thought best, and to reap the benefits of his individual skill and enterprise. As a result of the Enclosures large farms took the place of small ones, the whole system of agriculture was altered and the land became infinitely more productive[1].

What a contrast there is between a modern farm with its agricultural machinery, its improved implements, its tested seeds, its continuous use of the land, its scientific methods, and the old-fashioned *three-field* system, with its hand labour and primitive implements, and with everything regulated by custom and tradition.

Water-power. Of the forces provided by Nature which man has used to assist him in his productive efforts, one of the most widespread and one of the most useful is **water-power.** But, strange to say, it is only within the last few years that there has been anything like a real attempt to conserve and to utilize the immense force which lies hidden in every stream and waterfall. It is the discovery and utilization of another great natural force, viz. **Electricity,** which has roused public attention to the value and importance of water as a motive agent. Electricity must be generated and for this powerful machines must be set in motion. In England this is usually done by means of the great natural force called steam, and this again is

[1] By the end of the 18th century population had enormously increased and the migration to the towns had begun, so that there were more mouths to feed and a smaller proportion of the people were engaged in food-producing. Such a state of things was met partly by improved methods of production, and partly (though at first only to a very small extent) by importation of food.

generated by the use of coal, or gas, or oil. But in countries like Canada or Sweden, where water-power is abundant and where coal is difficult to get, the electric current is in many places obtained by controlling and regulating this force which Nature has so liberally provided.

When machinery was first introduced into industry, as a consequence of the inventions of Hargreaves and Arkwright, the only motive force available was water-power. The new mills were therefore for the most part built on the banks of the swifter rivers and we find the cotton spinning industry, for example, localized on the western slopes of the Pennine Range. But the supply of water was limited and irregular, and the means of regulating it were crude, hence the application of steam-power to machinery led to the establishment of industrial centres on the great coal-fields and to the neglect of water-power as a motive force.

To-day, however, the development of engineering science has made it possible to utilize the force of the rushing torrent in a far more economical way. Instead of being used to turn the wheel of a single mill, water-power is now applied in such a way as to generate energy sufficient to supply the needs of a considerable district. For this the water-power is economized. A part of the stream is diverted and conducted to great vertical tubes, at the bottom of which turbines are placed. These work the dynamos, and electric power is generated which can be transformed to a very high voltage and then transmitted by service lines to quite distant places. The greatest of such works at present in existence are probably those of the Ontario Power Company at Niagara. Water is taken in about a mile above the Falls. It enters a kind of bay where it is freed from solid matter and it is then passed along tubes or conduits 18 feet in diameter for a distance of some 2000 yards, that is to a point below the falls.

At the end of these conduits steel penstocks 9 feet in diameter and 307 feet long lead vertically downwards, then turning at right angles they lead horizontally to the turbines. Each penstock supplies one turbine unit, and the capacity of each turbine unit is 25,000 horse-power. Over the turbines are the generators from which a current of 12,000 volts is conveyed by cables to the distributing station high up on the cliff behind. Here the current is transformed from 12,000 volts to 60,000 volts, and the 60,000 volt current is distributed wherever it is wanted. In New York State there are some 450 miles of lines carrying the electric current from Niagara to various places. Syracuse, some 170 miles distant, is thus supplied with electric light as well as with power for its tramways and its factories. On the Canadian side, in the Province of Ontario, transmission lines of some 300 miles in length carry the current to places within a radius of 150 miles from the falls[1].

From the point of view of *efficiency in production* this is of extreme importance. The cheapening of light in houses, public buildings, factories and streets, is in itself a great thing, but the provision of cheaper motive power for tramways, railways and industrial undertakings of every kind, is a far greater one. In fact it may safely be prophesied that the extended use of water-power for the production of electric motive force is likely to bring about a revolution in the industrial world, hardly less extensive than that caused by the introduction of steam. Just as in the 18th century the use of coal led to agricultural districts becoming densely populated manufacturing centres, so now the use of electricity may lead to a shifting of the industrial centre of gravity from the coal-producing countries to those which Nature has endowed with abundant water-power.

[1] These figures were given to the writer when he visited the power works at Niagara in the autumn of 1910.

Land and *Water-power* have been taken as examples of the Gifts of Nature. It has been shown that efficiency in production depends very largely on the use made of them. Improvements in agriculture are continually being made; new ways of using Nature's forces are continually being discovered. Every such improvement and discovery increases the amount of satisfaction that may be derived from man's productive effort.

The **Efficiency of Labour** is the next subject for consideration. When men are working in industrial groups efficiency of labour is the combined effect of many causes. It depends partly on the employer and partly on the employed, partly on organization and partly on individual effort, partly on the tools, machines, etc., with which the worker is supplied, and partly on his own skill and industry in making use of them. Two questions therefore need to be answered if we are to arrive at any solution of this problem.

1. What makes the individual worker efficient?

2. How does the employer contribute to the efficiency of labour?

The *first* question may be answered very shortly:—

(*a*) The **power** to work.

(*b*) The **will** to work.

Power to work is a question of fitness. An industrial worker in this respect is like a soldier or a football player, he must be fit if his work is to be well done.

This fitness is of four kinds:—

(i) **Physical fitness.** A man's physical fitness is partly a result of his upbringing, or, in other words, of the standard of living of his parents. If brought up in a condition of poverty, insufficiently fed and scantily clothed, he is probably incapable of great physical strain. A man's

fitness is also very largely dependent on his own standard of living and on his own habits of life. He needs suitable food, clothing and shelter, he needs a certain amount of healthy recreation, but he must avoid excesses of all kinds. Moreover, healthy conditions at home and in the workshop are necessary if a man is to be physically fit for his work. The importance of fresh air and exercise are being increasingly recognised, and many firms make special arrangements for the health and comfort of their employees. In works like those of Messrs Cadbury at Bournville, such arrangements include a swimming bath, a drill hall, a dining room, separate playing fields for the young people of both sexes, clubs for social intercourse. Such things have a great economic importance, as they tend to raise the standard of efficiency.

(ii) **Technical fitness.** This is a question of aptitude, of training and of experience. Many perhaps have aptitude but have never been trained. Many also have had training, but through lack of opportunity to practise what they have learned they tend to become inefficient and unskilled. One of the great causes of poverty and distress is that so many have not learned a trade. Even if there were employment for the great masses of unskilled labour, their work is necessarily inefficient and ill-paid. Technical unfitness leads to physical unfitness, inasmuch as it almost always results in a low standard of living; and this is bound to have a disastrous effect on the welfare and capacity of succeeding generations.

(iii) **Intellectual fitness.** This is a question of education. For a workman to get on at the present day, mere handicraft is not sufficient. He must be intelligent, his mental powers must be developed and trained. Such training does not end with the school, it may be said only to begin there. In many localities opportunities are now

afforded for intellectual training after leaving school, such as public reading rooms and libraries, evening classes and lectures, etc. Many working men to-day eagerly grasp every such opportunity and many have made them a stepping-stone to a University training.

(iv) **Moral fitness.** This is summed up in the word "character." Early training, religious and social influences, help to form character; but it depends very largely on the individual himself and on his strength or weakness of purpose. Habits of self-reliance and self-respect, of honesty and industry, mark the really efficient worker.

Will to work may be a consequence of a man's energy and force of character. He may "put his back into it," as we say, from a pride in his work or from a sense of duty. There are, however, other forms of stimulus—the desire to get on, the opportunity for advancement, a direct financial interest in the success of the undertaking with which he is connected—all of which materially affect a man's zeal for his work and consequently increase the efficiency of his productive effort.

The *second* question—"How does the employer contribute to efficiency?" must now be answered. If each member of the industrial group worked independently of the others, i.e. if each had a task which he could complete without reference to his fellows, the master would contribute to efficiency by seeing that all worked under the best possible conditions, supplied with the most suitable materials, tools and mechanical appliances, with everything in short that makes for fitness. But under existing conditions the work of the industrial group is much more complicated, and its efficiency depends on organization. This then, as was shown in the last chapter, is the special contribution of the employer. The work done by the group is not merely the sum total of what the men could do as

individuals. It is infinitely greater, and how much greater is a matter of organization. The employer decides whether the scale of production shall be small or large, whether few or many men shall be employed, what tasks are to be assigned to each, what form the capital shall take, what patterns of goods shall be produced, and what price he shall demand for each.

Having now discussed the conditions of efficiency of the Gifts of Nature and of Labour, we must pass on to those affecting **Capital.**

As with Labour, two very important considerations will be (*a*) fitness, (*b*) method of application.

Fitness depends on the suitability of the capital to the purpose in hand. Capital, as we have seen, takes many different forms—e.g. buildings, plant, machinery, raw materials, etc., and whether these are more or less efficient depends on their quality and on the work they have to do. Buildings might be stately and well-planned but they might also be too large or too costly for the purpose to which they are put. A locomotive might be of the most powerful modern type, but it might be used for work that a much lighter engine could do. Such use of capital could hardly be called efficient because it is not economical.

Again, a new or up-to-date machine is generally far more efficient than a worn or old-fashioned one, because, if the same amount of labour were applied to it, it would turn out a larger quantity and a better quality of goods. Printing supplies us with one of the most remarkable instances of the economy of using new types of machinery. In 1895, to print and fold 36,000 pages of a newspaper with hand labour took 216 hours, while to do the same amount of work with the newest type of machine only took about one hour[1].

[1] U.S. Labour Bulletin 54, quoted in Seligman's *Principles*.

American and Canadian manufacturers are known for the readiness with which they abandon an old type of machine as soon as there is an improved one on the market. A Canadian on a visit to the Mother Country was being shown round some large engineering works. The foreman who was explaining things to him pointed with some pride to an antiquated looking machine and said, "That lathe has been in use for more than a hundred years." The visitor, in whose own works everything was kept well up-to-date, replied with some amusement, "In Canada that would have gone on the scrap heap long ago. The scrap heap is the most paying part of my business." Competition is so great now-a-days that people can hardly afford to use anything but up-to-date plant and machinery.

A further point that must not be overlooked is that just as the efficiency of Labour is largely affected by the nature of the Capital with which it is employed, so the efficiency of Capital depends to a considerable extent on the use to which it is put by Labour. The best of machines are unproductive if badly handled. The bad workman, says the proverb, is apt to find fault with his tools; good material and good tools are essentials of efficient production, but they would be useless without skilled labour and capable management.

Some of the most important aspects of efficiency in production have now been discussed, but two very prominent ones still remain, viz. the Division of Labour and the Large Scale of Production. These will form the subjects of our next two chapters.

CHAPTER VI

THE DIVISION OF LABOUR

"In the progress of efficiency perhaps the greatest factor has been the principle of specialization or division of labour." SELIGMAN[1].

THE Efficiency of productive effort depends very largely on the extent to which **Division of Labour** is carried. If we compare the results of industrial activity to-day with those which were obtained even half a century ago, we notice what an enormous advance has been made in the methods of production; and further, if we look more particularly for the cause of this advance we shall find that a great deal of it is due to the fact that work has become specialized, that everyone, as a rule, devotes his energies to some one particular kind of work, and that even the simplest article of daily use is the result of the joint effort of many workers.

Adam Smith[2] was so impressed with the importance of the Division of Labour that he devotes to it the first three chapters of his great work *An Enquiry into the*

[1] Prof. E. R. A. Seligman, Columbia University, U.S.A., an American economist, author of *Principles of Economics*, *The Shifting and Incidence of Taxation*, etc., etc.

[2] Adam Smith, "the founder of English Political Economy," born at Kirkcaldy, in Scotland, 1723; educated at Glasgow University and at Balliol College, Oxford; Professor at Glasgow from 1751 to 1763; died in 1790. Noted for his advocacy of "natural liberty" in economic matters and more especially for his attack on protection and on the monopoly of the colonial trade by the mother country. His treatment of economic questions was extremely practical.

Nature and Causes of the Wealth of Nations[1]. He first examines "the causes of this improvement in the productive powers of labour" and the opening words of Chapter I state the proposition which it is intended to prove. "The greatest improvements," he says, "in the productive powers of labour, and the greater part of the skill, dexterity and judgment with which it is anywhere directed or applied seem to have been the effects of the division of labour."

Our treatment of the **Division of Labour** will fall under four heads:—

(1) Its general **character.**

(2) Its various **forms.**

(3) Its **advantages.**

(4) Its **disadvantages.**

1. General Character.

John Stuart Mill regarded Division of Labour as one form of *Co-operation* or *Combination of Labour*. But here he was using the term Co-operation in the literal sense of working together for some common end, and not in the technical sense as employed in connection with the work of Co-operative Societies. According to Mill there are two forms of Co-operation—Simple and Complex. Simple Co-operation is working together to perform a task which is beyond the strength of the workers singly, e.g. one man alone could not move the trunk of a fallen tree, but several together can do so. On board ship one notices many acts of simple co-operation: e.g. the sailors going round the capstan, tightening a rope, or hoisting a sail.

In complex co-operation two or more persons work together for a common end by doing different tasks or

[1] This book was begun in 1766 and completed in 1776.

different parts of a task, e.g. when one man rears the cattle, a second tans the leather, a third makes the boots.

It is this latter form of co-operation that we call **Division of Labour.**

2. Various Forms.

(*a*) Even amongst savages we find some form of Division of Labour. In the illustration given on page 8 we noticed that a certain specialization began at quite an early stage in economic development.

The taking up by certain people of **particular industries,** such as spear-making and canoe building, is a good example of this. The assignment of separate duties to men and to women, or of special functions to the king, to the warriors, to the priests, to the medicine man, thus giving rise to certain social classes, are further examples from primitive society.

As the household by degrees ceases to provide for its wants by means of its own efforts, we get a further marking off of classes, the farmer, the craftsman, the trader, tending to become distinct, until we arrive at a state of things, such as exists at the present day, in which each has his own trade, business or profession.

(*b*) The illustration just given of the cattle, the leather and the boots, suggests another aspect of the Division of Labour, viz. a **division** of the work **into processes,** each complete in itself; the produce of one set of producers can be sold to another and utilized by them, the finished product of the one set provides the material on which the other works. It is not so long ago that in some parts of England all such processes were carried out on the same farm and probably by the same persons. To vary the illustration, in some parts of Europe to-day the clothes needed by the family are

entirely produced by its members. The sheep and the flax plant provide the raw material, woollen and linen thread are spun, cloth is woven, garments are made. Such a condition of industrial society is however rapidly disappearing, and people tend more and more to confine themselves to some one particular process of industry.

(*c*) With the introduction of the factory system a still further division of labour became general, viz. the **sub-division of processes**[1]. Adam Smith's example of the pin has become classical; so it will be as well to quote him at length:—

"To take an example, therefore, from a very trifling manufacture, but one in which the division of labour has been very often taken notice of, the trade of a pin-maker: a workman not educated to this business (which the division of labour has rendered a distinct trade), nor acquainted with the use of the machinery employed in it (to the invention of which the same division of labour has probably given occasion), could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty. But in the way in which this business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches, of which the greater part are likewise peculiar trades. One man draws out the wire; another straights it; a third cuts it; a fourth points it; a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business; to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them. I have seen a small manufactory of this kind, where ten men only were employed, and where some of them consequently performed two or three distinct operations. But though they were very poor, and therefore but indifferently accommodated with the

[1] Under this system the members of an industrial group have different parts of the process assigned to them. The work of each is merely a contribution to some joint result from which it cannot be separated and apart from which it can have no existence or value.

necessary machinery, they could, when they exerted themselves, make among them about twelve pounds of pins in a day. There are in a pound upwards of four thousand pins of a middling size. Those ten persons, therefore, could make among them upwards of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making four thousand eight hundred pins in a day. But if they had all wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made twenty, perhaps not one pin in a day; that is, certainly, not the two hundred and fortieth, perhaps not the four thousand eight hundredth, part of what they are at present capable of performing, in consequence of a proper division and combination of their different operations."

In Adam Smith's day the use of machinery was in its infancy, since then its extended use has made this subdivision of processes infinitely more minute. In a modern pin factory there are many more processes than those mentioned by Adam Smith, and the average output per man instead of being almost 5000 pins is probably not far short of 15 millions, that is each man's work to-day results in the production of about 3000 times as many pins as it did 140 years ago.

Many similar examples could be given. At the present time boots are often made by hand and in some cases a single workman may do all the work himself, but for the most part boots are made in factories. The work is then divided up into many separate processes, each involving the use of a special type of machine. A worker becomes expert in a particular process and would probably be unable to take up efficiently any one of the others. As a consequence the output of boots from the factory is many times as great per man as that of the man working by himself.

(*d*) There is one other form of Division of Labour to which reference must be made. The localization of an

industry in some particular district or place is often called the **territorial division of labour.** For example the Cotton Industry has become localized in Lancashire, and the Woollen in the West Riding of Yorkshire. In the same way newspaper offices are to be found in Fleet Street and banks in Lombard Street, while doctors congregate in Harley Street and corn-merchants in Mark Lane. To call this "Division of Labour" seems hardly appropriate, but as this grouping together of people in the same business or profession seems to a certain extent to render more productive the services of the individuals concerned, there is sufficient resemblance to Division of Labour, properly so-called, to justify the use of the term.

We have now distinguished between **four forms of Division of Labour:—**

(1) The division into **trades and professions.**

(2) The division into **complete processes.**

(3) The division into **incomplete processes.**

(4) The division into **districts suited to particular industries.**

Whether we call the process just described Combination of Labour or Division of Labour is immaterial. It depends entirely on one's point of view. If we look at it from the side of the individual workers we regard them as consciously or unconsciously combining to perform certain tasks or to achieve certain results. If on the other hand we look at it from the side of the organization of industry, we think of the employer as fixing his attention on the end of the industrial effort and then dividing up the work amongst those taking part in it, assigning to each that function which he or she is most capable of performing, and co-ordinating the efforts of all in such a way as to secure the best economic results.

The general results of the Division of Labour may be summed up as follows:—

Greater *productivity* of labour:
Greater *opportunities* for the use of capital:
Greater *diversity* of occupation:
Greater *need for* the peculiar *skill of* the *organizer*:
Greater *output* at less cost.

In short, greater *efficiency* of productive effort.

3. Advantages.

The special ways in which Division of Labour contributes to efficiency of productive effort must next be noticed:—

(i) If a man works at one thing only, he is far more likely to do it well than if he works at a great many things in turn. "Jack of all trades, and master of none," often describes him in the latter case. Through Division of Labour, therefore, his skill and dexterity are greatly increased.

(ii) When a man does many kinds of work, as for example the 18th century craftsman did—for he was often farmer as well as craftsman—a great deal of time is wasted in passing from one occupation to another. The getting out and putting away of a new set of tools, the getting from one place of work to another, the fetching of material, etc., all take time which would be saved if a man stuck to one job, or to one kind of work.

(iii) As processes become more and more subdivided, they become simpler, until it is found possible for many of them to be done by a machine. The extended use of machinery is in this way closely connected with the Division of Labour.

(iv) The processes taken over by machines are often those demanding the greatest physical effort. Many, therefore, at the present day, are working less with their

bodies and more with their hands than they would have done if there had been less Division of Labour.

(v) The simpler the process, the easier it is to classify workers and to assign to each the task for which he or she is best fitted. In this way men, women and young people of both sexes will find employment suited to their varying degrees of strength and ability. This means a great saving of skill. If the labour were not thus divided, many a highly skilled worker would be spending a great part of his day doing that which could be done by someone far less skilled. But when specialization is established the skilled man can devote his energies entirely to the work he can do best, and a boy can be doing that which demands little more than attention and quickness.

(vi) The more the processes of an industry are sub-divided, the more closely do certain types of work resemble one another. This has the advantage of making it easier for a man to change over from one occupation to another of a somewhat similar character, thus avoiding part at least of that waste of skill which results when a man is forced by circumstances to take up another kind of work.

(vii) It was said by Adam Smith that "the invention of all those machines by which labour is so much facilitated and abridged, seems to have been originally owing to the division of labour." This is true not only with regard to the workers themselves but also with regard to those whose calling it is to design machinery and to be continually improving it. The example given by Adam Smith is perhaps hardly typical. He tells us that when engines were first used,

"A boy was constantly employed to open and shut alternately the communication between the boiler and the cylinder, according as the

piston either ascended or descended. One of those boys, who loved to play with his companions, observed that, by tying a string from the handle of the valve which opened this communication to another part of the machine, the valve would open and shut without his assistance, and leave him at liberty to divert himself with his playfellows. One of the greatest improvements that has been made upon this machine, since it was first invented, was in this manner the discovery of a boy who wanted to save his own labour."

Many inventions have come from the daily watching of a machine and from the worker's practical knowledge of its construction and its movements. In some businesses the inventive faculty of the employees is stimulated by the offer of a reward for suggestions or inventions likely to prove useful. The Division of Labour also provides more scope for the inventiveness of the professional engineer. First of all there is a constant demand for machinery of all kinds, the slightest improvement in manufacturing processes being eagerly taken up. And secondly when machinery is in such general use and so highly specialized there is a much wider field for invention. Some make a special study of one kind of machinery, some of another and the enormous number of new patents applied for in a single year shows that this study results in the continuous improvement of mechanical aids to industry.

4. Disadvantages.

Some people are inclined to dwell more on the disadvantages which they consider have resulted from the Division of Labour than on its numerous advantages. These disadvantages may be classified as (*a*) **direct,** (*b*) **indirect.**

Direct disadvantages. It is frequently urged that:—

(1) When a worker instead of making an article complete in itself such as a watch or a pair of boots, spends all his days making one small part of it such as

the spring of the watch or the tongue of the boot, he is likely to become incapable of doing anything but that small part, and so, as a worker, to become less efficient.

(2) When a man only works at some small process he will not take the same interest in his work as when he is shaping or constructing some object which he knows will serve some purpose of use or enjoyment. His mind will tend to get narrow owing to the restricted character of his work.

(3) There is something monotonous in continually repeating some one operation such as feeding a printing machine with paper or passing logs through a steam saw-mill, and this monotony tends to intellectual dulness and therefore to inefficiency.

Indirect Disadvantages. The Division of Labour has brought with it the factory system. If different parts of the work are to be assigned to different workers, organization becomes necessary and this necessitates the gathering together of the workers in the mill or the factory. This very often means crowded towns and cities, life under unhealthy conditions, absence of personal contact between employers and employed, etc., etc.

That these disadvantages are inseparable from Division of Labour is denied by those who have given most thought to the subject. There is still a demand for manual dexterity, for intelligence and for resource. Work on the whole is lighter to-day and makes more demands on the mental faculties. The factory worker has as a rule wider interests than the agricultural labourer and more capacity for utilizing the hours of leisure. The Division of Labour has added considerably to the amount of satisfaction that can be obtained with a given effort so that its economic advantage is undoubted; and if we admit that the standard of living has been raised, the laboriousness of work

diminished, the opportunities of leading a fuller and wider life increased, the social advantages seem to be no less important than the economic.

The whole tendency of modern industrial life is towards specialization and towards increasing the result of productive effort. It must however be remembered that the test applied to industry is not—"Is the output large?" but "Does it pay?" There must be a demand for the goods produced or for the services to be rendered: people must be willing to pay a remunerative price for them. The lower the price of a thing, the greater as a rule is the demand for it. The Division of Labour tends to reduce the expenses of production and hence to reduce the price at which goods can profitably be sold. In this way demand is stimulated and the additional amount produced finds a market.

Tabular Summary of Chapter VI.

Division of Labour	**Trades and professions.** **Complete processes.** **Incomplete processes.** **Localized industries.**
Advantages	**Increase of dexterity.** **Saving of time.** **Increased use of machinery.** **Diminution of physical strain.** **Saving of skill.** **Breaking down of barriers between employments.** **Greater inventiveness and more scope for invention.**

Disadvantages

- *Direct*
  - Less skill required to make the part than the whole.
  - Narrowing influence of work.
  - Monotony of work.
- *Indirect*
  - The evils of a factory system.
  - Overcrowding in towns.
  - Loss of personal relation between employer and employed.

CHAPTER VII

THE LARGE BUSINESS

"The typical unit of production is no longer a single family or a small group of persons working with a few cheap simple tools upon small quantities of material, but a compact and closely organized mass of labour composed of hundreds or thousands of individuals, co-operating with large quantities of expensive and intricate machinery, through which passes a continuous and mighty volume of raw material on its journey to the hands of the consuming public." J. A. HOBSON[1].

A VERY conspicuous feature of the economic life going on around us is that business undertakings now-a-days are so much larger than they used to be. This applies to every kind of business—to manufacturing and to mining, to shipping and other forms of transport, to banking, to wholesale trade and even to the retail business carried

[1] J. A. Hobson, an English economist, author of *Evolution of Modern Capitalism*, *Problems of Poverty*, *The Industrial System*, etc., etc.

on in our shops. Examples are not difficult to find. The shops perhaps provide us with the most familiar illustrations. Many tradesmen who used to keep only one class of commodities now offer for sale goods of many different kinds. At the present day, for instance, most drapers sell fancy goods, travelling trunks, furniture and even cricket bats or tennis rackets. In London and other great cities there are large retail businesses, often called Stores, where everything can be bought from a pin to a motor car, and where one may even find a restaurant and a barber's shop. Then again do we not notice as we pass along the streets how many businesses are branches of some large banking or trading company whose head offices, shops or factories are elsewhere? The same thing is to be noticed in the great manufacturing centres. In many places the small factory seems to be dying out. Private undertakings are being turned into Joint Stock Companies, more capital is being introduced, larger and more convenient works are being built. Industry and trade alike are on a larger scale.

For this development two main reasons may be given:—

1. Owing to the fierceness of competition in business and to the underselling which is one of its most conspicuous features, it becomes more and more difficult to make a living in a small way of business, hence in self-defence people are forced either to enlarge their scale of operations or to place their services and their capital at the disposal of newly formed companies.

2. The very conspicuous advantages of business on a large scale lead many people to embark upon it. They trust to their improved position relatively to other firms to secure such an amount of business as will make the enterprise a success.

The tendency towards **Large Scale Production** reaches its height in that combination of capital known as the **Trust.** In the Trust the advantages of the *large scale* are to be found in their most developed form, and if the public shared in these advantages in the form of reduced prices, this form of business would have much to recommend it. Unfortunately however, it often happens that the Trust is able to control the industry, to establish a monopoly, and thus to secure for itself the lion's share of the benefits.

The **advantages of the Large Scale Industry** may be summed up in the one phrase—**saving of productive effort,** that is, through it a given result can be obtained with less effort—or, in other words, at less cost. The large scale then is more economical, and the economy is effected in a great number of ways. The various forms of saving may be grouped under two heads :—

1. Those connected with the **working of the business.**

2. Those connected with the **attracting of customers.**

To make the distinction clear let us take the example of a Railway Company. The **working of the business** consists mainly :—

(*a*) In keeping in good order the permanent way, the railway stations, the rolling stock, etc.

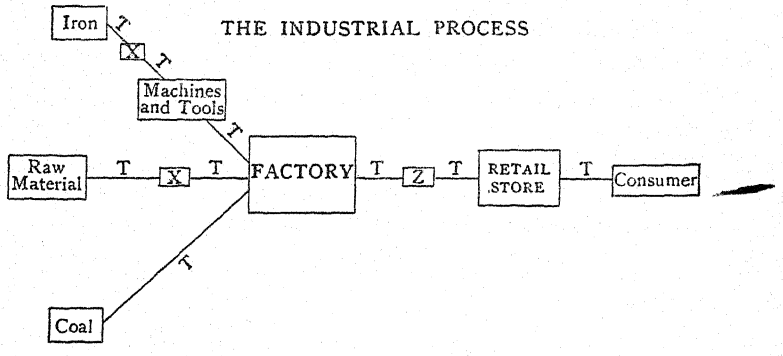
(*b*) In providing for the proper conveyance of passengers and of goods.

The **attracting of customers** is done :—

(*a*) By advertising as widely as possible the special advantages of the line, and the special attractions of the seaside and other resorts which it serves.

(*b*) By offering special inducements at particular periods, such as the issuing of week-end tickets and the running of excursion trains.

The savings effected in these two departments vary considerably with the nature of the business. It will be convenient, therefore, to take two types of undertaking, viz. the factory, and the retail store, and see how each benefits by doing business on a large scale.



T = Transport agencies.
X = Intermediate stages, such as smelting of ore, spinning of cotton or wool, etc., etc.
Z = Wholesale dealers and other "middle-men."

The factory and the retail store are really only stages on the road which leads from the first productive effort (the getting of raw material, etc.) to the final satisfaction of the consumer's wants. The savings which can be effected at any given stage by means of large scale production depend not only on the organization of the effort at that stage but also on the conditions of production at the other stages and on facilities for transport. Thus the factory depends (*a*) on the producers of raw material, fuel, etc., (*b*) on the various distributing agencies, such as wholesale

dealers, retailers, transport agents, etc., (*c*) on the tastes, desires and means of purchase of the consumers.

This may be illustrated by the diagram on p. 70.

THE FACTORY.

The expenses of the factory may be roughly classified as:—

(*a*) PREPARATORY	raw material fuel machines and tools transport
(*b*) MANUFACTURING	in the engine room in the workshops in the packing department in the office removing waste
(*c*) DISTRIBUTING	transport agents and travellers advertising

Let us consider the savings which in the large business may be effected under each of these heads:—

Preparatory Expenses.

There is always an advantage to be obtained by buying in large quantities. The manufacturer whose consumption of raw material and fuel is very large can in this way effect great economies. The producer of the raw material or fuel is saved much time and trouble and he is willing to take a lower price. And similarly with the makers of machinery and tools; they are able to give some advantage to those manufacturers who place large orders with them.

The railway and steamship companies also quote lower rates for large consignments. It is much less trouble comparatively to handle large quantities than small. Time is in this way saved, and in business "Time is money."

Manufacturing Expenses.

The most considerable of the economies connected with the large scale of production are effected in the *factory* itself. Here the advantages of the Division of Labour are most conspicuous.

To begin with the **Engine Room.** In most cases doubling the amount of machinery in use would not necessarily mean doubling the plant, or doubling the number of engineers employed. The engines would be more powerful, but there would probably be a saving in cost of upkeep and a saving of power.

In the **Workshops** Division of Labour would be carried to a much greater extent, organization would be more effective and more complete, more machinery would be introduced, the work would tend to become more specialized. Machines which in the small business would only be in occasional use, would in the large be running all day. Processes would become more sub-divided. More economical arrangements could be made for supplying the workers with material and for taking away finished work. Again the large factory is more likely to be up-to-date in its methods. It has greater command of capital and so can more easily introduce improvements or replace an old machine with one of newest type. Lastly, in the large factory it is possible to make experiments which it would be too costly for a small business to undertake; experiments with a view to the improvement of processes, to the introduction of new designs and patterns, to the opening up of new departments.

A large scale makes possible great improvements in

the **Packing Department.** To pack ten cases of a particular kind of goods at one time does not take so long as to pack the same number of cases at different times. But this is not the only advantage. The large business makes its own cases. It is worth while having special machinery for this. In large chocolate works for example, all the cardboard boxes, tins, and packing cases, are made on the premises by machinery. A printing department is also added for the printing of the illustrated booklets, of cards and of wrappers. Here again is a great saving of cost and great additional convenience which would not be possible on a small scale.

In the **Office**, again, we find that the large scale means improved organization and methods. The work of the clerks is more specialized. The more efficient can devote their time exclusively to tasks which demand the full exercise of their skill and intelligence. The more mechanical parts of the work such as adding up long columns of figures may even be done by a machine.

Thus in all four departments great savings are effected, but there is a further advantage of the large scale which must not be omitted, viz. the utilization of **waste products.** The large business not only results in less waste but it also leads to the putting to some productive use of that which before cost large sums of money to remove and to destroy. Let us take an example from a steel tube factory. When the tubes are to be galvanized they are first of all put into a large bath of hydrochloric acid to remove any rust there may be on them, then they are transferred to another bath to be galvanized. At the bottom of each of these baths there collects a considerable amount of sediment, which from time to time must be removed. In the first bath it is for the most part ferric oxide or rust. In the second it is a compound containing zinc. When the business is on a very great scale, instead of carting away the sediment

and paying for it to be destroyed, subsidiary industries are started in which it can be utilized. The deposit in the acid bath is used in the manufacture of red paint, from the deposit in the other pure zinc is obtained.

Distributing Expenses.

We now turn to those expenses which are incurred in connection with the **marketing** of the produce. When the goods are made they must be distributed to the consumers whose wants they were from the beginning destined to supply. But between the factory and the consumer there are often many groups of persons through whose hands the goods must pass. If these various distributing agencies are also doing business on a large scale the cost of transferring the goods from the factory to the consumer may be largely reduced. It is owing to the large operations of steamship, railroad and other companies that at the present day wheat can be bought so cheaply from distant parts of the globe and that manufacturers in America can sell their goods so cheaply in England.

For the moment, however, we must concentrate our attention on the saving in distributing expenses which comes from the manufacturer's own large scale of industry, and not merely from that of the distributing agencies. Owing to the fact that he sends large quantities of goods at a time he effects a saving in the cost of carriage from the works to the wholesale merchant, to the retailer or to the consumer. The cost of conveying the goods to the market often prevents a manufacturer from effecting a sale. He has to compete with others who are less distant than he is and whose transport expenses are consequently less. The large scale producer is often in a position to effect a saving in this direction. He is sending so many goods to a certain place that it is worth his while to have railway trucks of his own which can be loaded up in the works,

taken by his own engine to the nearest goods siding and there attached to the train. His consignments are so large that he gets specially reduced rates for conveyance by land or by sea. Thus the size of his business enables him to compete successfully even in the most distant markets.

Under this heading of *distributing expenses* come also all the costs incurred in connection with what was called at the beginning of this chapter, "the attracting of customers." These are for the most part connected with (*a*) **agents** and **travellers**, and (*b*) **advertising.**

It is through **the commercial traveller** that manufacturers secure a market for their goods. There is so much competition at the present day, that it is not sufficient for the goods to have a good reputation, they must be pressed upon the retailers who are going to sell them. Those who do not ask for orders, seldom get them.

In this matter of travellers the large scale business has a distinct advantage. The smaller the business the larger must be the area covered by the traveller. He sells a little in one town and a little in another, and a great part of his time is spent on journeys. But if the business is large, the man's time may be occupied in a single district. Besides it does not take any more time to book a large order than a small one, so that the expense is distributed over a much larger business surface. It should also be noticed that the large business can secure the services of the men most skilled in the art of selling and best acquainted with the special features of the trade and with the requirements of customers.

The traveller brings the goods to the notice of the retailer and secures orders from him, but **advertising** brings them to the notice of the general public, that is of those who will purchase them from the retailer. What the public demands, the retailer must supply. Here again the advantage is with the large producer. In the first

place certain forms of advertisement are so costly that they can only be undertaken by those whose scale of business is a large one. That it pays to advertise in this way is generally admitted. Secondly, the larger the business, the less is the cost of advertising per unit of output, for the cost must be spread over all the sales that can be said to result from the advertising.

THE RETAIL STORE.

The advantages which the **large retail store** has over the small shop are in some respects similar to those just described. The large store buys cheaper and gets special rates for the carriage of goods; it economizes in the packing room and in the office; it delivers its wares to the customer at less cost; it can afford to advertise extensively. In addition there are certain advantages peculiar to the large retail business. It is evident that the small grocer, for example, is bound to keep in stock a very large number of articles even though his customers very seldom ask for them. He suffers therefore from three disadvantages —he needs a capital large in proportion to his business, a great portion of his capital is lying idle, his goods often suffer in quality from being so long unsold. The large store, on the other hand, can afford to keep a much larger selection of goods, while in proportion to the amount of business done the stock kept is comparatively small. For instance, the store might sell 100 times as many goods in the course of a year as the small shop does, but it would not keep 100 times as much stock. It replenishes the stock as fast as it is exhausted. Thus, comparatively speaking, the large store (*a*) has a larger selection, (*b*) keeps a smaller stock, (*c*) turns over its capital more frequently, (*d*) has fresher goods, (*e*) (if the articles sold are subject to changes of fashion) is able to follow the fashions more closely and to make a more attractive display of the latest novelties.

What is the combined result of all these advantages? The answer must be brief.

(1) The large scale business produces at less cost than its smaller rivals. It can as a rule therefore undersell them and in many cases it crushes them out of existence altogether.

(2) The reduction in working expenses really means that more is obtained with less effort. As this is often followed by a reduction of price, it is an advantage to those who buy the goods[1], but not necessarily to those who make them.

(3) The earnings per cent. of capital may or may not be larger, but the large scale tends to the accumulation of large amounts of capital in few hands and thus to the amassing of large fortunes.

(4) The large scale demands great skill in organization and thus gives rise to a highly salaried class of business organizers.

If there are such great advantages to be derived from a large scale of production and if, as it seems, the larger the scale the greater the advantage, then it may reasonably be asked—"Is there any limit at all to the size of a business?" The answer is, "Yes, there are limits"—and these limits are briefly speaking three in number.

1. Certain types of business are more successful on a small scale than on a large.

2. An increase in the scale of production is sometimes followed by a less than proportionate return.

3. The Division of Labour, as Adam Smith tells us, is limited by the extent of the market.

[1] Reduction of price depends on the amount of competition. If the business is so large as to give its proprietors a monopoly, the price may even be raised, in spite of the reduction of cost to the producers.

With regard to the **first limitation,** the tailor's business will serve as an excellent example. In this line of business success depends on meeting the wishes and requirements of each individual customer. If the business gets too large this personal relation is lost and customers fall off. The wholesale clothier may have an enormous business, but the clothes he turns out are ready-made, they are for people in general—he caters for classes and not for individuals. In other businesses perhaps the personal skill of the worker is the conspicuous feature. There is little opportunity for the introduction of machinery or for Division of Labour. Or again it may be that the success of an undertaking depends on the personal attention of the employer to every detail. The "master's eye" needs to be everywhere or failure results. In such cases as these the scale of production is always likely to be comparatively small.

The second limitation needs very careful discussion. Many economic writers have stated a **law of diminishing returns** which is supposed to apply to agriculture and mining, i.e. to what are called *extractive* industries, and a **law of increasing returns** which is supposed to apply to manufactures.

These two laws may be stated as follows:—

1. If additional amounts of capital and labour were applied to any given piece of land, a point would be reached beyond which any fresh applications of capital and labour would result in a less than proportional return. That is to say—Returns would be **diminishing.**

2. In manufactures the application of additional labour and capital would as a rule be followed by a more than proportional increase of output. That is to say—Returns would be **increasing.**

These laws need to be examined a little more closely.

1. A farmer is cultivating a small plot of land, doing all the work himself and putting very little into it in the way of manure, etc. His returns are 10 bushels of wheat to the acre. But he changes his method of cultivation. He employs a man to help him and he improves the soil by applying twice as much capital to it. Instead of getting 10 bushels of wheat he now gets 25. His returns are increasing. He is therefore encouraged to take on a second man and to further increase the amount of capital used with the result that the land now yields 36 bushels. He continues to farm more intensively, as it is called. He adds another man and still more capital and gets a crop of 45 bushels. It is evident that the last two additions are not so remunerative as the first and that when more than two men are at work on the land the returns diminish in proportion to the effort expended.

With	1 unit	of labour	and capital	Crop =	10	bushels	an average of	10
„	2 units	„	„	„	25	„	„	„	$12\frac{1}{2}$
„	3 „	„	„	„	36	„	„	„	12
„	4 „	„	„	„	45	„	„	„	$11\frac{1}{4}$

We must remember however that these conditions are not fixed. Improvements in farming may be introduced which would tend to push further off the point at which the returns begin to diminish.

2. In the factory, however, things seem to tend in the opposite direction. An increase of labour and capital brings in the advantages of Division of Labour and large scale production which have already been fully described. The output is likely to increase more than in proportion to the additional amount of capital and labour employed.

So far it appears as if there were one law for agriculture and one for manufactures, returns tending to diminish in the one type of industry and to increase in the other. But this is not really the case, and the earlier writers were

wrong in drawing this line of division between them. As a matter of fact both are illustrations of the working of one and the same law, viz. **the law of productivity of industrial effort.** It was stated in Chapter V that productivity depends partly on the efficiency of the requirements of production individually, and partly on the way these requirements are combined in making the industrial effort. Increasing and diminishing returns are other words for more or less productivity in proportion to increased effort; but productivity is here regarded as dependent on the way in which the requirements are combined. If the business organizer is to combine the factors of production in such a way as to secure the best results, he must be able to alter at will the relative amounts employed. He may think it desirable to add more Capital, more Labour, or more of Nature's Gifts such as land or motive power, but if any one of these, say Land, is for the time being a fixed quantity, he has not full control and so cannot secure the best results.

In agriculture we may assume for example that the best results would be obtained by applying to a certain field of 10 acres, 10 units of Labour and 20 units of Capital. If the farmer could double the amount of all three he would get at least as good returns in proportion, but let us suppose that he cannot get more Land, and so tries to get more produce out of the 10 acres by increasing the amounts of Labour and of Capital to 15 and 30 respectively. Since 10, 10, 20 was the best possible combination, it is easily seen that 10, 15, 30 is not so good and that hence the returns will be less in proportion.

Or take an example from a manufacturer. The organizer with an output of 100 tons a month finds that Natural Forces, Labour and Capital in the proportion of 5, 15, 20, will give him the best results. His business increases and he can sell 200 tons a month. He therefore

increases his factors to 10, 30, 40, and he finds that not only does he still maintain the best combination and so double his output, but he gets the advantages of the larger scale of production and more than doubles it. His returns therefore are increasing.

Or a further example might be given in which the increase in the scale of the industry resulted in neither increasing nor decreasing, but in constant returns.

To repeat then what has been already said. Whether the returns are increasing, decreasing, or constant, is a question of the comparative degree of productivity of the industrial effort made under different conditions, and this depends on the extent to which the organizer can control all the requirements of that effort.

In this argument we have taken the amount of output relative to the effort expended as the test of productivity. But there is another side to the question. It is of great importance that the expenses of production should be as little as possible, but it is also important that the goods produced should be sold at such a price as to remunerate adequately the services of all those who have helped in the production. Those services are rendered in order to secure an income; the productivity of the business is ultimately measured by the incomes derived from it.

This brings us to the **third limitation,** viz. the extent of the market. It is possible that from increasing the size of a business, a great saving of cost per unit of output may result, and a far larger amount of goods may be turned out with a given effort. But the goods are made to be sold and unless they can be sold at a remunerative price, it is no use making them. The reduction of the cost due to the increase in scale often tempts many more people to buy, so that the additional output does in fact find a market, but where this is not the case an increase of scale is impossible. If, for example, a woollen manufacturer found that

by making 5000 yards of cloth he could afford to sell it at 3/- a yard
" 10,000 " " " " 2/6 "
" 20,000 " " " " 2/- "

his scale of production would depend on his being able to sell the given number of yards at the given price. Let us suppose that at 3*s.* he could sell 4000, at 2*s.* 6*d.* 10,000, and at 2*s.* 18,000. He would not under these circumstances increase his scale to 20,000 because he could not sell that amount with a profit.

In earlier times when producers sold their goods only in their immediate neighbourhood, the market was very narrow and the scale of production very small. But at the present day with our highly developed means of transport, with easy communication by post, telegraph and telephone; with our banking system and our various forms of commercial machinery; producers find a market in the most distant places and the possibilities of increasing the size of their business are enormously increased.

CHAPTER VIII

THE HISTORY OF PRODUCTIVE EFFORT

"The history of industry and commerce is only the story of the various ways in which human resources have been applied so as to satisfy constantly developing human wants." CUNNINGHAM[1].

THE last five chapters have been devoted to a consideration of the various aspects of *productive effort.* In them it has frequently been stated that this effort is made because people have wants and that through effort wants are satisfied; also that since under modern conditions the result of effort is expressed in terms of a money income, **productive effort may be regarded as the source of income.**

[1] See footnote to page 42.

At different periods in a nation's history the productive effort has been made under very different conditions and has therefore assumed various forms. There has been a continuous development in economic life from the simple habits of the primitive tribe to the complex organization of a modern industrial community. Abundant illustration of this can be found in the industrial history of the English people. Down to the end of the 18th century the predominant economic idea seems to have been **Self-sufficiency**, that is, the provision by each social unit of that which was required to satisfy its own economic needs. When there was little communication and people lived in isolated groups the self-supporting unit was a very small one, but as time went on this unit always tended to increase. In early Anglo-Saxon days each **household** aimed at self-sufficiency, later each **manor** and **town** had before it the same ideal, and finally, when a more national sense was developed, and the policy of the country was to further national interests, the prevailing idea was that the **country** was one large unit which economically ought to be independent and self-sufficient.

With the 19th century came a very different conception. The unit was to be the whole **world**. In each country or district should be produced that for which the physical or other conditions seemed best suited, and the products of each country should be freely exchanged for those of every other. Thus, it was urged, as a result of the territorial Division of Labour, the world's production of wealth would, under the existing conditions of industrial skill and knowledge, reach its greatest possible extent. Such a policy, however, did not sufficiently take into account national aims and national ambitions. There has in consequence been something of the nature of a reaction against this extreme point of view, and at the present day there are signs of a tendency in the direction of a revival

of the idea of **National Self-sufficiency.** But, it should be noticed that the term has now a somewhat different meaning. In earlier times it implied the provision by the community of all that was needed to supply its wants, foreign trade being encouraged only because it brought things that could not be produced at home, while it provided additional markets for home products. Now the self-sufficiency aimed at is mainly political in its character for it means independence, so far as it is possible, of foreign countries in the matter of (*a*) food, (*b*) munitions of war (including coal). In many countries, however, the national policy has, besides, more definite social and economic ends —such, for example, as the encouragement of those industries (*a*) which tend to promote a strong and healthy population (e.g. agriculture), or (*b*) which work up raw material (e.g. timber or iron-ore) produced in the country itself.

In this chapter, however, we are concerned not so much with economic policy as with economic effort and the forms it has taken at different periods, so that economic policy will only be brought in when it exerts some special influence on industrial life. The gradual development of the self-sufficient unit from the **household** to the **nation** will be traced in outline, and the causes and nature of the successive changes will be briefly explained.

The Household.

The first English settlers in this country, who began coming over from the North of Germany about the middle of the 5th century, followed in their new home, so far as we know, the habits of life to which they were accustomed. They seem to have had a great aversion to towns. They were agriculturists living in small village groups. Their wants were few and these could be satisfied no doubt by their own direct effort. At this early date each household was for the most part self-supporting; it grew its own food

and for shelter, furniture, implements, clothes or ornaments it depended on the industry and skill of its own members. A type of industrial society not very unlike this, may still be found in some parts of Europe, though it is rapidly disappearing. In Sweden, for example, the Dalecarlian peasant is practically self-supporting. He is a peasant proprietor owning some few acres of agricultural land in the valley, enough pasture for his cattle on the hill-side or Saeter, and certain timber rights in the neighbouring forest. In the summer the women work on the farm, the girls and boys look after the cattle on the Saeter, the men cut timber in the forest. In the long winter evenings the women and girls spin and weave, make clothes and quilts and rugs, while the men and boys make furniture and household utensils and repair the tools and implements required on the farm.

The Village.

In an early stage of society the relation between want and effort is clearly reflected in the social and industrial life of the people. Some tribes are pastoral, others are agricultural. According as they are keepers of flocks and herds or tillers of the soil, so will be the type of village group in which they will settle. The English village with which we are generally familiar, with its cottages and homesteads near to one another, lining the village street or surrounding the village green, was the most convenient form of settlement for an agricultural people cultivating in common the wide stretch of arable land which surrounded the village; each cultivator having assigned to him several scattered strips of land, the produce of which was his own peculiar property. If, however, the community happened to be a pastoral one, we should probably find a different type of village. The homesteads would be scattered, because each would be situated on the particular piece of land where the cattle and sheep of the occupier were accustomed to

graze[1]. Thus the origin of the two types of village, the compact and the scattered, may be traced to economic needs and economic habits of life.

The Town.

From the *village* we must pass to the *town*. The distinguishing feature of the early village life was that each household was self-sufficient, it provided entirely for its own needs. But in the town we shall find a community in which the members are working mainly if not entirely to supply the wants of others, and thus indirectly to supply their own. This will become more evident when we have considered the causes which led Englishmen to exchange the free and open life of the country for the more restricted life of the town. In one aspect the early town was little more than a large village of which the residential part was enclosed by some kind of protection such as a wall or a stockade, the arable and pasture lands lying round it on the outside. The need of defence against possible attack was no doubt a general reason for living in such fortified places, in fact town-life in England is said to date from the time of the Danish Conquest. But in another aspect the town is an economic unit of a different type altogether from the village. The origin of towns has been traced to many different causes. In one case it may have been due to the establishment of a military post; in another to the existence of some centre of religious life such as a monastery, a cathedral, or a shrine; in a third to the meeting of traders at some spot geographically convenient, e.g. on the sea-coast, on the estuary of a river, at the intersection of two main roads, or at a ford where a main road intersects a navigable river. But in every case there is one underlying economic characteristic, viz. the gathering together of people,

[1] This type of village is more usual in the Celtic parts of England such as Cumberland and Cornwall, also in the western parts of Yorkshire, in Wales and in Ireland.

such as soldiers, monks, priests, pilgrims, worshippers, traders, who are not self-supporting, that is who do not produce for themselves the food, clothes, etc., that they need, and so become dependent on the work of others. Round them will gather a community by whose efforts they will be fed. There will be an interchange of services and a specialization of functions. The service of some will be to fight, to pray, or to bring goods from a distant part, the service of others will be to cultivate the soil and to practise the crafts which will supply the simple needs of the whole community. Though the individual members of this town community are not economically self-sufficient, the town as a whole is. The two main differences at first then between the economic life of the village and that of the town are (1) in the latter case the self-sufficing unit is larger, (2) the members of the town community become dependent on one another for the necessaries and conveniences of life.

The Manor.

A similar change will in time take place in the village itself. For defence against outside attack the weaker members of the community will begin to rely on some powerful neighbour who in time becomes their lord. He is a wealthy man and he has many wants but he does not satisfy them directly with his own effort. He will defend the inhabitants of the village and they will cultivate his fields for him. A new organization, therefore, springs up in the village, the essential feature of which is the relation of lord and tenants. The **manor**, as it is now called, becomes the unit of economic life instead of the household. The demands on the productive capacity of the manor become greater as civilization develops, and after a time a certain amount of specialization takes place. The **smith** is probably one of the first to find that his skill is in general

demand and that his time can most profitably be spent at the anvil. Later on perhaps the **wheelwright** and the **miller** will specialize on their own particular work, and their example will be followed by others. For a long time no doubt the craftsman will spend a part of his day in cultivating his fields, but ultimately his craft will absorb the whole of his time. By degrees, however, life will tend to become more luxurious, and the more well-to-do will want things which the manor cannot produce. To satisfy these needs therefore they will have to produce more food or wool than they will themselves consume, to sell the surplus at the neighbouring town and to buy of the pedlar who goes from house to house, or of the merchant in the town, the foreign wares that they cannot otherwise obtain. The main results of all this will be that the manor will gradually cease to be self-sufficient, the relation of its various members to the lord will undergo a change, and its importance will begin to decline.

A few words must be said about the industrial life of the manor. The community consists of the lord and his tenants. The latter may be of different ranks—a few, perhaps, are free men, the rest are semi-servile. The majority are small farmers, they cannot leave the manor—they are so to speak tied to the soil—and they must do certain specified services for the lord. They may be divided roughly into two classes: (*a*) **villeins,** holding about 30 acres, and (*b*) **cottars** holding about three to five acres. The lord holds the manor from some greater lord or from the King on condition of military service, but to all intents and purposes he may be said to own the land. A part of it called the demesne is cultivated by the tenants for the lord, and the produce of the demesne provides him with an income. The rest is cultivated by the tenants and forms their means of livelihood. The land of the manor is divided into three parts, the arable, the pasture and the waste. Every tenant

has so much arable and so much pasture allotted to him and he has grazing and other rights on the waste. The arable land, the open field as it is called, is divided into three large fields, two of which are cultivated each year, the third being left fallow. These three fields are divided up into a large number of strips, each measuring about an acre, separated from one another by banks of turf called baulks. Each member of the community, whether lord or tenant, has a certain number of these strips to cultivate according to his social rank. His strips do not join one another but are scattered over the three fields[1].

Two general principles seem to have regulated the size of a man's holding—(1) the villein should not have more land than he could cultivate in the time at his disposal, (2) he must be able to live on the produce of his holding. It was a practical application of the idea that for a man to live in those days two things were essential—(*a*) **land,** (*b*) **time** to cultivate it.

The **cottar** class presents some difficulties. The cottar has only three to five acres, and this would hardly provide him with the means of livelihood; besides, to cultivate this amount would take very little of his time. It may be supposed therefore that (1) he must have another source of income, and (2) his time is otherwise taken up. He is probably doing the more menial services for the lord for which he receives food or other payments in kind, or he may be doing services for the village, such as herding sheep or cattle, receiving in return from the other villagers a portion of their produce.

The Gild.

As the industrial life of the *town* develops, some form of organization becomes necessary, and this is provided by the **gild.** The tendency to separation of trades has gone

[1] A brief description of the *Open-field System* was given on page 47, but for the sake of completeness it is repeated here.

on apace as a consequence of an increased demand for articles of use and personal adornment. This demand will at first arise mainly with two classes in whose hands a certain amount of wealth has accumulated:

(1) the manorial lords whose sheep-runs or whose wide lands tilled by villein labour have yielded them a surplus produce which they can exchange for articles of luxury, etc.

(2) the Church which has acquired lands and is constantly receiving gifts of piety.

But by degrees many of the townsmen also will become rich and in consequence will have a higher standard of living. The industrial community soon finds itself in need of protection. Protection against the lords to whose exactions its members are exposed; protection against the competition of those of their fellow townsmen who would injure trade by selling articles of poor quality; protection against the foreigner, that is the trader from another town, who might undersell them in their own market. This need for protection brings into existence the Merchant Gild, which, once established, soon acquires freedom from the lords and control of local industry. The lords anxious to raise money for a Crusade or for some other enterprise readily give up their claims in exchange for the ready money of the gild, and the townspeople freed from exactions take advantage of the newly acquired security to improve their industry and to accumulate wealth.

As regards control of industry the policy of the gild was (*a*) **internal,** (*b*) **external.**

(*a*) None but members of the gild were allowed to engage in trade, and the gild regulated how the goods were to be made and under what conditions they were to be sold.

(*b*) The outsider was jealously excluded. If he wished to sell in the market of a particular town he must

pay special tolls and must conform to the market regulations. There was a very good reason for this: the citizens had paid a high price for their trade privileges and were naturally unwilling to share them with those who had contributed nothing.

At first the term *merchant* covered both craftsman and trader, for each man sold the wares that he had himself made, but the growing complexity of wants and the greater specialization of trades led to the emergence of a separate trading class to which in time the term *merchant* was more especially applied. This greater specialization further led to the formation of Craft Gilds—separate gilds for the supervision of particular trades and for the safe-guarding of the interests of those engaged in them. Thus a weavers' gild controlled the weaving of cloth; no one was allowed to carry on the industry who was not a member of the gild, and every member had to make and sell according to the prescribed rules.

It has been shown that the ideal of industrial life in the Middle Ages—whether on the manor or in the town—was local self-sufficiency. But forces were at work which tended to break down the barriers erected to preserve it. On the manor the desire of the lords to get the means of satisfying their more luxurious desires led to (*a*) the commutation of labour services for money payment with the subsequent disappearance of the villein, and the rise of two new classes—the tenant farmer and the free labourer; (*b*) the keeping of sheep for the sake of the wool, which led to the fencing in of portions of the waste and the withdrawing from the open fields of the lord's demesne land; thus enabling him to turn the greater part of his land into compact sheep runs[1]. In this way two essential features

[1] This process is commonly known as "Enclosure." In the 15th and 16th centuries it was only going on over a very limited area. It was not till the 18th and 19th centuries that enclosure may be said to have become general.

of the manor—the relation between lord and villein and the system of open-field cultivation—began gradually to disappear and to give way to a new order of things.

In the town, interests tended to widen. Trade became national instead of local. National regulations began to override local ones. The gilds, no longer supreme, gradually declined in importance until they passed out of industrial life altogether. With the extension of trade beyond local boundaries a new industrial personage emerged, viz. the **Trader.** The trader was a *middle-man*; a connecting link between the *producer* and the *consumer.* Trading was a special form of productive effort and the wider the gap between the craftsman and the final purchaser of his wares, the greater did the importance of the trader become. He alone came into contact with the consumer, and he alone therefore could judge of the character and extent of the demand. The craftsman made what the trader was willing to buy and to a certain extent therefore became dependent on him.

State Regulation.

From the mediaeval conditions of manor and gild with their local organization and local self-sufficiency we pass by slow degrees to the **State regulation of industry and commerce,** to a policy known as **Mercantilism,** by which the industry and commerce of the country were used as a means of securing National Power, and the interests of the individual were subordinated to those of the country at large. Traces of a mercantilist policy may be seen as early as the 14th century, but economic changes in early times were very slow and it is not till the days of Elizabeth that we can say that the new order of things is completely established and that the type of industry which we associate with the manor and the gild has given place altogether to another.

In many respects the new type is not so very unlike the old, but its outlook is wider, it has ceased to be purely local, it has in itself possibilities of further development. The geographical discoveries of the 16th century and the colonization of the 17th open up new and more distant markets. Ports like London and Bristol become great centres of trade. New products are brought to them from far off lands, industry becomes more diversified and there is a great advance in industrial art.

Agriculture is in many parts still carried on according to the old system of the *Open-field*, and the manor is still there, but the conditions of country life are very different. The lord of the manor lets most if not all of his land to tenant farmers who pay him rent for it. But he is not the only landowner. A class of small landowners called Yeomen has arisen, whose standard of living is low, for they cannot obtain from their land much more than the bare necessaries of life, yet their sturdy independence proved to be England's greatest source of strength, and their firmness and courage secured the victory on many a well-fought field. The parliamentarian forces in the Civil War were largely composed of them, and the unbroken success of Cromwell's Ironsides is evidence of the stuff of which they were made. The 16th century had been a period of hardship for the small farmer, but in the 17th his position was considerably improved. The increase of wealth in the towns, due to the extension of trade and industry, meant a greater demand for agricultural produce, and the farmer had in addition another source of income in the handicraft which occupied a portion of his time. Every farmhouse had its looms, and the cloth thus produced found a ready sale on market day in the neighbouring towns.

The agricultural labourer was another important feature of the rural community. His wages were low, but he too

had other sources of income. He grazed his cow on the waste, he cultivated his little piece of garden ground, while the spinning wheel brought in a little ready money, for the yarn was much in demand for weaving.

In the towns the craftsman (who, especially in the smaller places, was often an agriculturist as well) followed his own particular calling, assisted by his apprentices and his journeymen. The craftsman had himself been through the preliminary stages of apprentice and journeyman. There was thus no class distinction between master and man. The youth was apprenticed for seven years to learn his trade. Then, as he was not yet considered to have arrived at years of discretion, and was in need of both experience and capital, he served for a few years as a journeyman or hired worker. In time he became a master craftsman, and set up in business for himself with apprentices and journeymen of his own.

This type of industry is known as the **Domestic.** Its characteristic feature is that it is **non-capitalistic**[1], that is, the craftsman is an independent producer; he works for his own customers, himself owning the necessary capital, e.g. the raw material and the tools; the finished product is his and he disposes of it as he will.

The Industrial Revolution.

But this state of things is not destined to last. Little by little the capitalist, that is the man whose accumulated wealth is employed in setting others to work, begins to appear. At first it is more in trade than in industry that he is needed. In the days of Elizabeth daring sailors like Drake and Raleigh had great schemes for adventurous voyages which were expected to result in enormous profit to those who took part in them. But very often these pioneers had not the means to fit out costly expeditions of

[1] Cunningham, *Growth of English Industry and Commerce.*

this kind, so wealthy noblemen and burghers, probably also the Queen herself, provided the necessary capital and thus became in a sense partners in the enterprise, running great risk of not seeing their capital again, and receiving as their reward a portion of the wealth brought home by those who were successful. By degrees the capitalist begins to figure also in industry. This is especially the case where the raw material is imported. The craftsman cannot purchase it in small quantities at his own door or even in his own neighbourhood, he must buy it in large quantities and of the merchant in the distant city. But he has very little ready money and so the capitalist comes to his aid. The capitalist buys the raw material and employs the craftsman to work it for him. Little by little he acquires control over the industry until the craftsman is to be found working on the capitalist's premises, using his tools and machinery and receiving a wage for the services he renders.

For a long time the change in industry from a non-capitalistic to a capitalistic form went on very slowly, but in the second half of the 18th century the pace was somewhat suddenly accelerated. So complete was the change effected in the course of a comparatively few years that the movement goes by the name of the **Industrial Revolution.**

The primary cause of the Industrial Revolution was, doubtless, the great extension of the market for British goods brought about by the colonial expansion which resulted from the successful wars with France and Spain. Whenever there is a known demand for a nation's products an effort is made to adjust the supply to that demand. But industrial methods were so backward that the output per man could not be increased to any appreciable extent. This was the opportunity for the inventor. In rapid succession one labour-saving device after another was introduced and the productive capacity of the nation as a whole was enormously increased.

One of the earliest industrial improvements was the discovery that coal could be used for smelting iron ore[1]. At the beginning of the 18th century the **iron industry** was dying out because the forests which supplied the charcoal for smelting were rapidly disappearing. The fact that in England coal and iron are found in close proximity to one another contributed largely to the great development of the iron industry and to its establishment on the great coal fields. Thus when at a later date there was a great demand for machinery the improvements in iron manufacture made an adequate supply of it possible.

Great changes also took place in the **cotton industry.** The inventions of Hargreaves, Arkwright and Crompton introduced successively (*a*) the operating of many spindles at once by a single workman, (*b*) the use of water-power and the making of a stronger thread, (*c*) the making of a thread fine enough for muslins. In this way cotton thread was manufactured in very much larger quantities and of very much better quality. Spinning for a time was far in advance of weaving, but the latter process was improved by the invention of Cartwright's Power Loom in 1785. Steam-power was also substituted for water-power, and the mills, which had been built at first on the banks of the swifter rivers, were now built on the coal fields, giving rise to the crowded manufacturing towns of the Midlands, of Lancashire, and of the West Riding.

By degrees the use of machinery and of steam-power became general, until in most forms of manufacture the factory was the industrial type. The change meant greater division of labour, a larger scale of industry, more capital. But capital was just what the craftsman could not supply,

[1] The discovery is said to have been made by Dudley in the 17th century, but little use was made of it. Further experiments were made a century later with the result that coke was first used for the smelting of iron by Abraham Darby in 1735 at the Coalbrookdale Works in Shropshire.

so the capitalist employer came to be a necessity and the craftsman ceased to be an independent worker. Production was carried on in large industrial groups in which the work was controlled and directed by the business organizer.

The social results of the change cannot be dealt with here. It is sufficient to say that while the amount of material wealth produced was being rapidly increased, poverty and distress seemed to increase with it. The inability of many to adapt themselves to the new conditions, the great fluctuations in the demand for commodities and in the conditions of supply, together with the consequent irregularity of employment, resulted in great social evils, which in their turn called for special efforts on the part of the workers themselves and for special social legislation on the part of the Government.

A few words must also be said about the **changes in agriculture** which went on side by side with those taking place in manufacturing industry. A system which had answered very well when the object of farming was merely to get from the land the necessaries of life proved quite unsuitable when the object was to make as large a profit as possible. Under the open field system improvement was impossible[1]. All must cultivate the same crops and use the same methods. Improvement therefore necessitated enclosure. When each farmer in place of his scattered strips had a compact farm marked off from his neighbours by hedges or walls, scientific methods could be introduced into agriculture, and it was worth while to cultivate far more intensively and to apply capital to the land.

[1] "The drawbacks of this system were tolerably plain. Time was idly spent in passing from scattered strip to scattered strip. Drainage was a failure, if your neighbour did not drain his land as well. The use of new machinery was as little possible as the observance of a new "rotation"; and common rights of pasture over the stubble were a serious obstacle to winter crops." L. L. Price, *A Short History of English Commerce and Industry.*

The economic advantages of the new order of things were very marked. Crops were much heavier and there was greater variety of them. Land did not need to be left fallow and so the cultivable area was increased. Hitherto cattle had been kept chiefly for draught purposes and sheep for their wool, now both were regarded as sources of food supply. But the changes proved a great disadvantage to the small landowner or yeoman and to the agricultural labourer. The yeomen were for the most part an unprogressive class. They could not take readily to the new methods and they had very little capital; it was difficult for them therefore to compete with larger and more scientific farmers. Other causes, moreover, combined to bring about their ruin. The establishment of the factory system deprived them of their second source of income, viz. handicraft. The long wars with France brought great fluctuations of prices and heavy taxation. The increase of pauperism burdened them with excessive Poor Rates. As a result the yeomen found it impossible to pay their way and they were forced to sell their land to capitalist farmers who were only too glad to increase the size of their holdings. Large farming thus took the place of small and capitalism became a feature of agriculture just as it did of manufacturing industry.

The agricultural labourer suffered in a somewhat different way. The enclosure of the waste meant the loss of his free grazing and he was unable to keep the cow which had supplied him with milk, etc. He lost also his home industry, for spinning was now done in the mills. Thus his income was diminished just when, owing to the war, prices were extremely high. It often happened, therefore, that he migrated to the towns where the newly established industries created a demand for labour, and by degrees the population of England instead of being mainly rural and agricultural became to a large extent urban and manufacturing.

Thus the Industrial Revolution brought about great changes in the form and character of industrial effort in this country. It introduced a **capitalistic system** in which Capital and Labour are two clearly defined factors. As a consequence of it men are now working in large industrial groups, deriving their income from the produce of a highly organized effort which for the most part they only very partially comprehend, failing in many cases to realize the extent to which they have contributed to the result and the relation between the work done and the income received.

ECONOMIC

SELF-SUFFICIENCY

LOCAL				EXTENSION OF TRADE	NATIONAL		
Household	Village / Town	*Organization*	Manor / Gild		Small Farms / Domestic System	*Capitalism*	Large Farms / Factory System

BOOK III

BUYING AND SELLING

CHAPTER IX

THE CONDITIONS OF EXCHANGE

"On both sides of the exchange there are persons and there are commodities; and from one point of view each of the persons is a buyer, as he is a seller from another. He buys the goods of the other party, and he sells his own." L. L. PRICE[1].

AT this stage in the development of our subject it is necessary to go back for a moment to the account given in Chapter II of economic life in general. There it was suggested:—

(1) that the central fact of economic life is *income*;

(2) that man's economic effort is devoted to the getting of an income;

(3) that under modern conditions such effort is indirect, for it is expended on objects which will not themselves satisfy the want which gave rise to the effort;

(4) that men work in industrial groups and that the product of the effort must be sold before the wants of the individual members of it can be satisfied.

Sale and purchase, the process by which the result of effort can be expressed in terms of income is the subject of Book III. It will be divided into two chapters, one

[1] L. L. Price, M.A., Reader in Economic History in the University of Oxford, author of *Political Economy in England*, etc., etc.

dealing with the **principle** which underlies all exchange, the other with the **means** or **machinery** by which exchanges are effected.

Exchange by Barter.

Why, it may be asked at the outset, do people exchange things with one another? An answer to this will best be found by examining an instance of the simplest form of exchange, viz. **Barter.** One boy, *A*, has a knife which his friend *B* would like to possess, while *B* has a fishing-rod to which *A* has taken a fancy. Will they exchange? That depends on whether

1. *B* would rather have *A*'s knife than his own fishing-rod.

2. *A* would rather have *B*'s fishing-rod than his own knife.

If these conditions are both fulfilled, the knife is exchanged for the fishing-rod, and both *A* and *B* may be said to have gained by the transaction. Three things seemed to be necessary on each side of the transaction.

1. A **desire** for the thing owned by the other.

2. A **willingness** to make some sacrifice to obtain it.

3. A **comparison** between the satisfaction to be gained by possessing the thing desired and the satisfaction derived from the thing already possessed but which must be given up in order to get that which is desired.

Or looking at it for a moment from *A*'s point of view, these three things might be expressed thus:—

1. **Desire** to possess *B*'s fishing-rod.

2. **Willingness** to give *B* something for it.

3. **Comparison** between the satisfaction of getting *B*'s rod and the loss felt by parting with the knife.

The power to satisfy want is in Economics called **Utility,** so it may be said that if an exchange is to take place *B*'s rod must have in *A*'s eyes a greater utility than his own knife, and *vice versa.*

As a result of comparing the two utilities

A considers that *B*'s rod is worth the sacrifice of the knife;

B considers that *A*'s knife is worth the sacrifice of the rod.

The one thing is therefore exchanged for the other.

The expression of the worth of the one thing in terms of the other for which it is exchanged is called its **Value,** and this idea of Value is the fundamental principle of all exchange, whether it be the exchange by two boys of one foreign stamp for another, or the exchange by two merchants of the one's goods for the other's money.

EXAMPLE I. **Exchange by Barter.**

A has **knife** but would rather have **rod.** — **Knife and rod exchanged** — *B* has **rod** but would rather have **knife.**

Exchange by Sale and Purchase.

In the example given barter is possible because *A* and *B* each have exactly what the other wants[1], but in ordinary life such a method of exchange would prove extremely inconvenient. If, for example, farmer *A* had a horse but wanted to exchange it for several other things such as a coat, some chairs, some flour, and a gun, he would find it difficult to meet with anyone who had all these things and who was at the same time willing to take the horse in exchange for them. *E* has a gun but *A* will not give his horse for it and he cannot give him a part of the horse.

[1] There is in this case what is called a "double coincidence of want."

Other people have coats or furniture or food but *A* is unable to get them because he does not want as much of any one of these things as he would require in exchange for the horse. In order to get out of difficulties like this, money was introduced and now-a-days goods are generally exchanged for money, or at any rate what is paid for them is expressed in terms of money. It was stated just now that Value is the expression of the worth of a thing in terms of that for which it is exchanged, but as now-a-days things are exchanged for money, the value of a thing may be said to be the sum of money that would be paid for it, or in other words—its **Price.**

EXAMPLE II. **Exchange by Sale and Purchase.**

A has **horse** but wants **coat, chairs, flour, gun.** — SELLS FOR—**£10**—BUYS:
- *B*'s **coat** for £2.
- *C*'s **chairs** for £3.
- *D*'s **flour** for £1.
- *E*'s **gun** for £4.

By these various transactions *A* has received in exchange for his horse, a coat, some chairs, some flour and a gun. The value of the horse was £10 and this sum was exactly equal to the sum of the values of the goods purchased.

THE THEORY OF VALUE.

If we now understand what is meant by Value, we can go on to a further question—How is Value determined? In the example last given we supposed that the horse was sold for £10, the coat for £2, the chairs for £3, the flour for £1, and the gun for £4. Why did they fetch those exact sums? To answer this question requires some knowledge of the Theory of Value, so we must study this carefully before we go any further. The sale of *A*'s horse will serve as a useful illustration. We may assume that *A*

has use for a horse but that he would rather have the coat, chairs, flour and gun, if he could get all of these in exchange, i.e. if he could buy them with the money which he would get for the horse. We may also assume that *A* will not take less than a certain sum for the horse (for if he did he could not buy the coat, etc.), and that he will try and get as large a sum as possible. Looking at it from **the seller's point of view** we notice that

(*a*) he has a minimum or reserve price,

(*b*) he will get as much more than the minimum as he can.

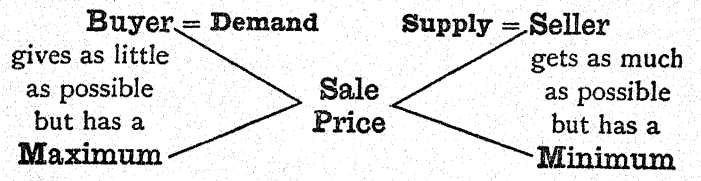
But he must find a customer, and if no one is willing to buy, that is, to pay the minimum price, there can be no sale. Further, people are only willing to buy when the thing offered is worth to them at least the price that is asked. Looking at it from **the buyer's point of view** we notice that

(*a*) he has a maximum price beyond which he will not go because the thing offered is not worth more to him,

(*b*) he will pay as much less than the maximum price as he possibly can.

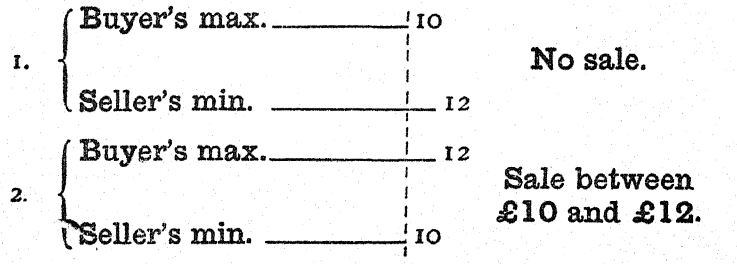
There are then two sides to every bargain, the buyer's and the seller's, the former is spoken of as **Demand**, the latter as **Supply**[1].

EXAMPLE III. **One Buyer and one Seller.**



[1] The precise meaning given to these terms in Economics will be explained later on in this chapter.

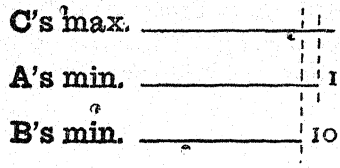
So far it has been shown that the highest possible price is the buyer's maximum and the lowest possible price is the seller's minimum, so that these two are the limits between which the actual price will be. If the maximum were £10 but the minimum were £12, there would be no sale. Whereas if the maximum were £12 and the minimum £10 the price could be either £10 or £12 or between £10 and £12.



We have now found the limits, but what will decide the actual price? This depends on competition—on the relative bargaining strength of the two parties. Each tries to conceal from the other his limit price and the fact that he is anxious to buy or to sell as the case may be. If the seller really wants to sell and thinks that the buyer is indifferent, the price is likely to be nearer £10 than £12. If on the other hand the buyer is keen on getting the horse and thinks the seller will not part with it unless he gets a good price, the price is likely to be nearer £12 than £10. Thus the point between £10 and £12 at which the sale will actually take place will be fixed by (*a*) the desires, (*b*) the skill in bargaining, of the two parties.

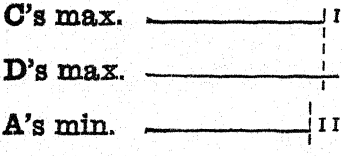
This example is the simplest that can be given because there is only one horse to be sold and only one buyer, but the principle will be the same in all cases. Let us vary the example a little.

EXAMPLE IV. **One Buyer and two Sellers.**



If *C* wanted to buy a horse and *A* and *B* each had one to sell, the maximum and minimum prices being those shown in the above diagram, the price would be affected by the competition between the two sellers. As there is but one buyer, and he wants only one horse, one of the sellers must be made to retire and that can only be done by forcing the price down below his minimum. In the example given the competition between *A* and *B* would force the price down below £11 and then *A* would retire. The price then will be below £11 but not less than £10. After *A* has retired the bargaining goes on between *B* and *C*, and according to their relative strength so will the price be in favour of one or the other.

EXAMPLE V. **One Seller and two Buyers.**



If *C* and *D* each wanted to buy a horse and there was only one for sale, viz. *A*'s, it is evident that *D* would be the buyer because he is willing to give for it more than *C* is prepared to pay. The competition between *C* and *D* would soon force the price up to just over £12 when *C* would retire. Now the bargaining will be between *A* and *D*. The price will be more than £12 but not more than £13; what it is exactly depends on the relative bargaining strength of *A* and *D*.

Demand. From these examples it can be seen that what really determines the value and the price is the working on one another of two forces, the one being the desire of the buyer to possess the thing in question, and the other the reluctance of the seller to part with it unless he can get what he considers a fair price for it. These two forces are commonly called **Demand** and **Supply.** The terms seem easy enough to understand, but as they are used in Economics in a very special and restricted sense, it is best to give some definition of them. A boy may see a very attractive looking cricket bat in a shop window, and may be very desirous of having it, but unless he has the money to buy it and is willing to pay the price asked, there is no demand. Demand then implies three things:—

(1) **Desire** to possess a thing,

(2) **Means** of purchasing it,

(3) **Willingness** to use those means for purchasing it.

When we talk about the demand for anything, we mean the demand for it of people in general, the total demand. But this depends on the price asked, for we know very well that the willingness of people to buy a thing depends very much on what they have to pay for it; more or less will be demanded according to the price. **There is no such thing** therefore **as demand apart from price.** If we say, "There is a great demand for motor-cars," we mean that at the prices asked for various types of car people are buying freely. Or at some particular time it may be said that strawberries are in great demand, and that means that large numbers of people are willing to pay the price that is then being asked for the fruit.

For most commodities the demand varies with the price, that is to say the demand increases as the price falls and diminishes as the price rises. A thing is in demand

because it has power to satisfy wants, but all people have not the same wants nor have they the same means of satisfying them. The want cannot be satisfied unless an effort is made; and in the case of purchase the effort takes the form of paying the price necessary to induce the owner to part with the thing desired. The maximum price that anyone is willing to pay is determined by the utility of the thing to him. One man would give £1 for a thing for which another would not give more than 10*s*. Two men want to get to a place some little distance off. One would pay 2*s*. rather than walk, the other would not ride if he had to pay more than 2*d*. The one will probably take a cab, the other a tram. It can easily be understood that the demand for cabs will depend on the fare charged, and that if the tram fare were reduced to 1*d*., a large number of persons would ride who now walk. Very few people buy strawberries at 2*s*. 6*d*. a pound, but there is an enormous sale when the price has fallen to 6*d*. When demand is thus influenced by changes of price, it is said to be **elastic.** There are some things, however, the demand for which remains very much the same even if the price is altered. Those people, for example, who now buy all the bread they can possibly want would not buy much more if bread were cheaper, nor would the consumption of salt be much greater than it is if the price of salt were reduced, or much less if the price were raised. In such cases the demand is said to be **inelastic.**

Business men notice very carefully the varying conditions of Demand, and their success largely depends on not offering more goods at a certain price than will find a sale. It is possible to draw up what is called a **Demand Schedule,** that is a table showing the amount that would be demanded at each possible price. For instance, a manufacturer is proposing to make a certain type of

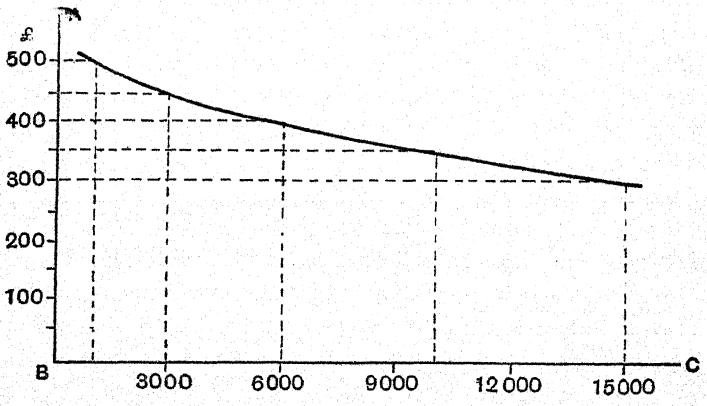
motor-car, so he works out to the best of his ability the number of cars he would be likely to sell according to the price he asks for them. His table might be something like this:—

If **price** were	£500	annual	**demand**	would	=	100
„ „	£450	„	„	„	=	300
„ „	£400	„	„	„	=	600
„ „	£350	„	„	„	=	1000
„ „	£300	„	„	„	=	1500

and so on.

If his sale represents $\frac{1}{10}$ of the total amount of such cars that would be sold, by adding a '0' to the above numbers we shall get the total annual demand.

This Elasticity of Demand can also be shown diagrammatically by means of what is called a **Demand Curve.**



The vertical line *AB* is marked in units of price. The horizontal line *BC* is marked in units of quantity sold.

Opposite to each price and vertically over the corresponding quantity that would be sold at that price according to the table, a dot is put. Through the dots a curve is then drawn. If a line is now drawn through any point in *AB* parallel to *BC* and from the point where it intersects the

curve a line is drawn perpendicular to *BC*, the amount that would be sold at any given price is at once clearly seen.

Supply. We must now turn to the question of Supply. Just as we had to be careful to distinguish between *desire* and *demand*, so we must be careful to distinguish between *stock* and *supply*. The stock is the quantity of goods that could be sold, the supply is the quantity that would be sold at a given price. In Example IV, the stock of horses was two. At £11 the supply would also have been two, but between £10 and £11 the supply would have been one and below £10 it would have been none. **There is no such thing then as supply apart from price.**

We have seen that the buyer's maximum price is determined by (*a*) his desires, (*b*) his means of purchase, but what determines the minimum price that the seller will take? In the first place we must assume that the seller is a business man who does not value his goods for the use he can make of them, but only for what they will fetch. He wants to part with them, but he will not part with them at a loss. If he is a *manufacturer*, he has had what are called expenses of production. He has had to pay for buildings, for keeping up his machinery, for raw material, etc., and he has had to pay salaries and wages. If he is a *merchant* or *tradesman*, he has had to pay for the goods he is going to sell and he has had his working expenses as well. In either case he has had to give his own time, skill and effort to the business in question. It is evident then that the lowest price he can afford to take is that which will repay all his expenses and provide him with an income. Such a price is generally called *cost price*, and it is the seller's minimum.

Like Demand, Supply is affected by price—though in the opposite direction. The higher the price the more are people as a rule willing to sell, and *vice versa*. If the

supply quickly responds to changes of price it is said to be **elastic**, if it responds slowly or does not respond at all it is said to be **inelastic**. The supply of most manufactured articles may be considered elastic because if the price rose many would manufacture who do not now do so, and if the price fell many would cease to manufacture. This, however, takes time, so it is usual to say that at any given moment supply is more or less inelastic according to the amount of goods in stock, but that if time is allowed the supply of such goods is elastic because more can be produced within the time that people are willing to wait for them. This, however, is not quite the case with agricultural products. If the world's wheat harvest is scanty, the price of wheat is likely to go up, but there will be no more wheat till next harvest, and the want of bread is urgent, so that the supply of wheat and other fruits of the earth may be said to be inelastic.

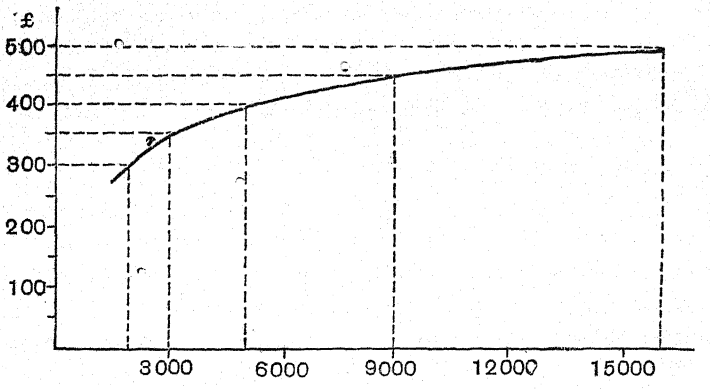
Different manufacturers have very different costs of production so that a price which would give a profit to one would cause loss to another. A high price enables what we call the "weaker producers" to sell, a low price excludes them from the market altogether. In this way the quantity supplied is affected by changes of price.

The way the possible supply varies with price is suggested by the following **Supply Schedule**:—

Under certain given conditions of manufacture

Number of cars	that could be	**supplied**	**at**	£500 =	16,000
"	"	"	"	£450 =	9000
"	"	"	"	£400 =	5000
"	"	"	"	£350 =	3000
"	"	"	"	£300 =	2000

This Elasticity of Supply can also be indicated by means of the **Supply Curve**, which can be interpreted as above.



THE DETERMINATION OF PRICE.

So far, we have examined more especially

(*a*) The meaning of Demand and Supply.

(*b*) The fixing of the buyer's maximum and the seller's minimum.

(*c*) The effect of Price on Demand and on Supply.

Now we must give our attention to the effect of Demand and Supply on Price and in this way we shall arrive at a final answer to our main question—How is the price of a thing determined?

When at any given price the demand is greater than the supply, the sellers will be able to ask more. The higher price will make more people willing to sell, but fewer willing to buy. On the other hand, if at any given price the supply is greater than the demand, some sellers will ask less. The lower price will then make fewer willing to sell and more willing to buy. Thus, through changes in price, demand and supply gradually approach one another till they equate. The price at which they equate is called the **Market Price,** and this is the price at which goods change hands at any given time and place.

This will be more clearly understood if we put together in one table the Demand and Supply Schedules already given.

BUYERS		SELLERS
Demand	**Price**	**Supply**
no. of cars	**£**	**no. of cars**
1000	500	16,000
3000	450	9000
[5500	410	5500]
6000	400	5000
10,000	350	3000
15,000	300	2000

If the price asked were £450, 9000 would be offered but only 3000 would be bought. In order to sell their cars, the strongest producers, i.e. those who produce at lowest cost, will ask less, say £400. The change in price lowers the supply to 5000, but raises the demand to 6000. Now it is the other way round: the demand is greater than the supply. The sellers can now ask more and they raise the price to £410. At this price it is possible that 5500 would be offered and 5500 would be bought, in which case the market is in a state of equilibrium and the market price is £410.

Two questions need to be answered before we are in a position to make our final statement about Value[1].

[1] In order to simplify as far as possible this very complicated problem, the following assumptions have been made which, though subject to modification in individual cases, may be regarded as generally true:—

1. That the goods are sold in the wholesale market and under ordinary conditions of competition.

2. That buyers and sellers are actuated by ordinary business considerations—viz. that no buyer will give more for a thing than he thinks it is worth to him, and that no seller will take less for an article than its cost of production, which is taken to include such a profit as would be a necessary inducement to him to continue the business.

1. Why would not more than 5500 cars be bought at £410? Because the utility of that particular type of car to those who did not buy was less than £410. Many of those who bought the cars would have given a higher price if necessary, but the persons who were only just induced to buy may be assumed to have been willing to give £410 and no more. The utility of the car to each of them, then, was £410. These buyers were just over the margin between buying and not buying, so £410 is said to be the **marginal utility** to them of a motor-car.

2. Why would not more than 5500 be sold at £410? Because under existing conditions of supply all cars in excess of 5500 would have had to be supplied by manufacturers whose cost per car was greater than £410. Many of those who sold could, if necessary, have taken a somewhat lower price, but we may assume that to those who were only just induced to sell the cars cost £410 each. These makers were on the margin between selling and not selling; £410, therefore, represents the **marginal cost of production** of the car.

The whole question may now be very briefly summed up:—

The Price of anything (i.e. its money value) is determined by the interaction of two forces, Supply and Demand, which act and react on one another through the medium of price-changes until a state of equilibrium is reached. The equilibrium or Market Price measures at the given time and place both the marginal utility to those just induced to buy and the cost of production to the marginal sellers.

CHAPTER X

THE MACHINERY OF EXCHANGE

"Money is the centre around which Economic Science clusters."

MARSHALL[1].

THE difficulties attending exchange by *barter* have led to the use of money. People do occasionally exchange one object for another, e.g. a man may exchange a motor-bicycle for a typewriter, but in the ordinary business of life we exchange what we have for what we want by means of sale and purchase. This needs some one thing for which all others can be exchanged and that one thing is called **money.** Money then is not desired for itself but for what it will purchase; it is like a form of machinery which makes easier and simpler the process of exchange.

Functions of Money.

Money has various functions or uses, but for our purpose it will be sufficient to mention its two chief ones:—

1. **Money is the medium of exchange.**
2. **Money is the measure of values.**

This first use of money is the very reason for its existence. The seller parts with his goods for money, because he knows that everyone else will also accept money for goods. Thus through the medium of money his own goods or services are really exchanged for the goods or services of others. The second use of money is also essential. The value of everything can be measured in money and in this way the values of different things can be compared. For instance, supposing the price of tea were 2*s.* a lb.,

[1] See footnote to page 1.

of coffee 1*s.* 6*d.* and of sugar 3*d.*, we could say that 4 lbs. of coffee are worth 3 lbs. of tea, that 1 lb. of tea is worth 8 lbs. of sugar, and 1 lb. of coffee worth 6 lbs. of sugar. Money is thus used as a measure of value and by its means we are able to calculate exactly what we can get of other things in exchange for the goods we sell or the services we render—or in other words we are able to compare the sacrifice made with the satisfaction obtained. For example a man is paid 30*s.* a week and with that 30*s.* he provides for the needs of his family. Since the value of his services and the values of the things he buys are expressed in money he is able to calculate what amount of effort on his part is needed to satisfy a particular want.

Forms of Money.

The idea of money is in our minds closely associated with various forms of paper money and with coins. But it must be borne in mind that paper money and coins are not the only forms of currency recorded in history, and in some parts of the world even at the present day other articles are used as a medium of exchange.

When money was first used, the great idea was to get in exchange something which was in general demand, which could be used by the person himself or which other people would be only too glad to take from him. This would probably be some article of personal adornment, some commodity of general consumption, or, in the case of an industrial community, the product of a particular industry. The form of the money would vary with the degree of civilization and the habits of life of the people. The fondness of the savage for ornament has led various tribes to adopt glass beads or cowrie shells as their medium

of exchange. In olden days cattle were in general use especially among pastoral peoples. At a later date the fur traders of North America made use of skins, and the tobacco planters of Virginia of tobacco-leaf. Many other examples might be given but these are sufficient to indicate the character of the currency which under primitive conditions of life would readily be adopted.

These various forms of money were all chosen for one quality—the essential one of general acceptability. But as trade developed these more primitive forms of money proved unsuitable. Some were too perishable, others too costly to transport, or too variable in quality. Finally, in all the more civilized countries, the precious metals, gold and silver, were chosen as possessing all the qualities most desirable in a currency[1], though since the outbreak of the Great War paper money has all over the world taken the place of the gold coins so widely used up to that time. In addition to their being everywhere **acceptable,** gold and silver are very **portable,** for they contain great value in comparatively small bulk; they are **durable,** for they wear out very slowly in use; they are **imperishable,** for if stowed away they lose neither in weight nor in quality; they are **valuable** in the form of bullion (i.e. uncoined metal) as well as in the form of coin; they are **fusible** and so if not needed as coin they can be melted down and put to some other use; they are **uniform** in quality, every piece of pure gold or silver being of the same substance throughout; they are easily **divisible** and so can be made into coins of the size required; they are **difficult to counterfeit,** thus making it difficult for false coins to be put into circulation. It seems hardly likely, however, that a gold currency will ever again come into general use. The currency requirements

[1] The money in use in a country is called its currency because it is current, i.e. passing freely from hand to hand.

of the world are now so enormous that, even if there were enough gold obtainable to meet immediate coinage requirements, the maximum gold production of the world would probably not suffice to maintain this coinage in addition to supplying what is needed for gold reserves and for manufacturing purposes.

Coinage.

When gold and silver were first used as currency they were not in the form of coins, but were lumps or bars of metal and all payments had to be made by weight. The metal had also to be assayed or tested to see if it was of the required purity.

After a time the purity of the metal was indicated by a stamp impressed on one side of each bar. Later on however this very slow and clumsy method was abandoned and pieces of metal of a definite weight and fineness were used instead[1]. These were of various shapes, but for the most part they were round, and were stamped on both sides. This system had the great advantage that the money could now be counted instead of weighed. But there appears to have been a great want of uniformity in the coins of early days, for in a document[2] dating from the reign of Henry II it is recorded that when the sheriffs paid into the Exchequer what they had received in the way of taxes, the money was first counted by the tellers, then weighed by the chamberlain, after which a portion of it was tested by the silverer. The document is in the form of a dialogue between a master and his pupil. The latter cannot understand why counting should not be enough, so he says, "Inasmuch then as all money of this kingdom

[1] The English pound was originally a pound weight of silver. There was no gold coin of that name before 1817.

[2] *Dialogus de Scaccario.*

ought to have the stamped image of the king, and all moneyers are bound to work according to the same weight, how can it happen that all their work is not of one weight?" To which the master replies, "It can happen through forgers and clippers or cutters of coin. Thou knowest, moreover, that the money of England can be found false in three ways: false, namely, in weight, false in quality, false in the stamping."

By degrees, however, more uniformity was obtained. From the time of Elizabeth all coins (with the exception of copper[1]) have had to be minted in London, while the introduction from France of the process of *milling* the edges of the coins has made clipping impossible.

The more or less general use down to 1914 of three different metals—gold, silver and bronze or nickel—was largely a question of convenience. A gold shilling or a silver penny would be so small that it would be difficult to avoid losing it. Equally inconvenient would be a silver pound or a bronze shilling.

In connection with the use of money, we come across certain terms which need explanation.

1. Legal Tender. That form of money which a seller or a creditor is required by law to accept in payment of his debt is called *Legal Tender*. In Great Britain gold sovereigns and half-sovereigns, Bank of England notes, and Currency notes of one pound and ten shillings are legal tender to any amount, silver coins only for sums up to 40 shillings, pence up to one shilling, half-pence and farthings up to sixpence.

Currency Notes were first issued in August 1914 and since then they have taken the place of the gold coins which were withdrawn from circulation, but as the Act of Par-

[1] Private issues of copper coin were prohibited in 1817.

Gold." They got 1½*d.* less per ounce by going to the Bank of England but they did not have to wait for their gold to be coined. It was better for them to have the money at once than to wait perhaps three weeks and then get 1½*d.* more. Thus the usual proceeding was for the gold bullion to be bought by the Bank of England and paid for in Bank notes (which could then at will be exchanged for gold coin) and for the Bank to get it coined by the mint, at such times and in such quantities as the business of the country seemed to demand.

The outbreak of War did not bring about any change in the legal position of the Bank in this respect, but, owing to the fact that the market price of gold rose very considerably, it is not surprising that people owning gold would not sell it to the Bank at £3. 17*s.* 9*d.* per oz. when they could get very much more for it elsewhere.

However in 1925, in order to facilitate the return to a **gold standard**[1], an Act was passed which amongst other things relieved the Bank of the necessity of issuing gold coin in exchange for its notes and at the same time relieved the mint of its obligation under the Act of 1870 of coining any gold bullion brought to it for that purpose except in the case of gold brought to it by the Bank of England.

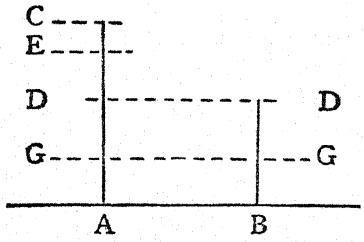
4. **Brassage.** When the Government of the country takes out of the coin an amount of gold equal to the cost of coinage, this deduction is called *brassage*. In France this amounts to 4 centimes on every 20 franc piece, the coin therefore is only worth 19 fr. 96 centimes. (See Diagram.)

5. **Seigniorage.** When the Government makes a profit out of the coinage by fixing a low legal standard, the amount taken out in addition to the cost of coinage is

[1] See page 120.

called *seigniorage*. There is a heavy seigniorage on English silver coins. (See Diagram.)

6. Debasement. It has sometimes happened, as in Tudor times, that the sovereign has issued money containing less than the standard amount of precious metal. This difference between standard and real value is called *debasement*. (See Diagram.)



Let AC = nominal value of the coin.
BD = legal amount of metal in the coin.
BG = actual amount of metal in the coin.
Then CE = Brassage.
ED = Seigniorage.
DG = Debasement.

7. Depreciation. Money is a form of *wealth*, and may therefore be said to have a *value*. Money is an object of desire and effort is made to obtain it, but money is not desired for its own sake, it is desired because its possession enables a person to buy what he needs and thus to satisfy his wants. The value of money depends on the quantity of other things that can be obtained by means of a given unit of money—say a sovereign. This evidently depends on prices. *If prices are raised*, less can be bought with a sovereign and the value of money is said to have fallen, money has become **depreciated.** *If* on the other hand *prices are lowered* more can be bought with a given quantity of money than before and the value of money is said to have risen, money has become **appreciated.**

8. Token Money. This is also called subsidiary money or **Billon**. It consists of coins used for purposes of small change, such as English silver and bronze coins. These coins often contain but a very small portion of their face value in precious metal. They are not freely coined, being issued only by authority of Government and in such quantities as are required for purposes of commerce.

9. Gresham's Law. Sir Thomas Gresham[1] laid down the principle that in any country where two kinds of legal money are in circulation at the same time *the bad money always drives out the good.* The validity of the principle cannot be discussed here, but its meaning is that those who only want the coins for the gold they contain, such as foreign merchants who have sold goods in England, bankers and others who wish to hoard money, and goldsmiths who may want to melt the coin down, would refuse to take any but the heavy money. This would therefore tend to go out of circulation leaving for the most part only the light money for general use.

Paper Money.

Before the Great War paper money in this country was comparatively little used as a medium of exchange owing to the fact that Bank of England notes, the only form of paper money then in circulation, were and still are not issued of less value than £5. Where money changed hands it consisted in the main of gold coins supplemented by silver and copper for purposes of small change.

We must not, however, forget the important part played by cheques in every day business transactions. They are in

[1] Sir Thomas Gresham was a London merchant, born 1519, died 1579; assisted Queen Elizabeth with the recoinage of silver in 1560; founded the Royal Exchange and Gresham College.

very general use even for quite small sums, and they may be regarded as the most important and practical means of making payments, especially when buyer and seller are not in personal contact with one another at the time of payment. Cheques take the place of money but they are not money. They are a form of credit and hence they will be dealt with under that heading later on in the chapter.

Since 1914 however, paper money has come into much more general use. The almost universal withdrawal of gold currency made it necessary to find a substitute, and in notes of various denominations a currency was provided both cheaper and more elastic. In this country the smallest currency note is for ten shillings but in France notes for one franc and in Germany for one mark are in circulation.

There has been much discussion as to whether or not paper money can satisfactorily fulfil the functions of a currency. The two chief of these were given earlier in the chapter, viz. to be (*a*) a medium of exchange and (*b*) a measure of values. As regards the former so long as paper money is accepted by creditors without hesitation, it can be asserted that it is as good a medium of exchange as coin, but as regards the latter, the answer is not nearly so clear or so simple.

If, as has already been pointed out, a measure of any kind is to be regarded as good it must be fixed and invariable. Take for example the measures of length, or weight, or capacity, the yard, the pound, the gallon must conform to the standard kept at Greenwich Observatory, and hence are always the same.

It is not possible to find a measure of values so invariable as these, but gold has always been regarded as the nearest possible approach to an unchanging standard. But how can paper money act as a measure of values? True, a one pound note has not like the gold pound an intrinsic value of its

own, but it is considered to represent a gold pound, and so long as its purchasing power remains the same as that of a gold pound, it has an equal value to it and it is an equally good measure.

The whole problem then consists in keeping the paper currency on a par with gold and this is done mainly in one of two ways[1]:

either by making it convertible into gold on demand,
or by regulating the amount issued.

Both of these ways can be well illustrated from the paper money in circulation in this country and hence the examples given below will be in the main British.

It is usual to divide paper money into two classes, **convertible** and **inconvertible. Convertible paper money**, as the name suggests, can always be converted into coin at the will of the holder. The bank or Government which issues it undertakes to redeem it on demand by paying the sum printed on it. This makes it necessary for banks or other currency authorities when issuing notes to have in reserve a large amount of gold or silver, so that under all circumstances they may be able to give coin in exchange for the notes that are presented for payment. It is not necessary to have a metallic reserve equal to the full amount of the notes issued, for it would hardly be possible to present all the notes for payment at one time. For example, Bank of England notes are *convertible* but the amount of the notes issued by that bank is 19¾ millions more than the gold kept in reserve. Thus when as might happen at some particular time the issue of notes is about 169¾ millions, there is gold in the cellars of the bank of a value of 19¾ millions less—or about £150,000,000.

[1] A third way might be mentioned as auxiliary to the latter of these, viz. by the Government always accepting the currency in payment of customs duties and other taxes.

The issue of notes by the Bank of England is regulated by the Act of 1844. According to this Act, notes in excess of the 19¾ millions just mentioned can only be given out in exchange for gold (which may be in specie or in bullion[1]) and gold must be given by the bank in exchange for all notes brought back. Thus the process is automatic—*notes go out when gold comes in and gold goes out when notes come in*—and it secures two important things:—

(1) The issue of notes never exceeds the legal amount.

(2) The proper reserve of gold is always maintained.

The only change in the legal position of the bank that was made at the outbreak of war had reference to the restriction of issue. By the Currency and Bank Notes Act of 1914, the Bank of England could on the authority of the Treasury "issue notes in excess of any limit fixed by law." This, however, was only a temporary expedient and the issue of notes does in fact conform to the requirements of the 1844 Act.

The bank's liability to exchange its notes for gold on demand remained unaltered, but in practice the right of taking notes to the bank and converting them into gold was during the Great War and the years immediately following very little exercised. The two main purposes for which the gold obtained from the bank is generally used are (1) for ordinary currency purposes and (2) for export, but gold coin was not in circulation and licence was required for export (and licences were not granted unless any special reasons could be given), hence the person demanding gold was looked upon with a certain amount of disfavour if not with suspicion, as there was always the risk that the gold might be melted down to take advantage of the high price which gold bullion was fetching in the market.

[1] Specie = coin, bullion = uncoined metal.

An important change as regards the convertibility of bank notes was made by the Gold Standard Act of 1925 which enacted that "the Bank of England shall not be bound to pay any note of the Bank in legal coin" and that "Bank notes shall not cease to be legal tender by reason that the Banks do not continue to pay bank notes in such legal coin." But the bank continued to be bound to sell gold bullion at the rate of three pounds, seventeen shillings and ten pence halfpenny an ounce, though only in the form of bars containing 400 ounces of fine gold. Since 1925 export of gold has been permitted without licence.

Thus the conditions under which bank notes are issued—viz.

(1) that the notes issued are with the exception of a prescribed amount covered by gold,

(2) that the bank is compelled to sell bars of gold at the standard rate—

secure the stability of the pound sterling and render it an efficient measure of values.

Inconvertible paper money is issued without any undertaking to exchange it for gold or silver on demand. It is merely money in the form of paper, instead of in the form of coin. It is in most cases issued by the Government and not by a bank. The amount issued is left to the discretion of the currency authority and no reserve of gold is required to cover it. It costs hardly anything to issue additional quantities of this money and hence there are many examples of Governments when in great financial difficulties, as for example in recent times Russia, Austria and Germany, meeting their liabilities by issuing paper money, which, owing to the enormous amount that was issued, became after a time almost worthless.

This, however, is not necessarily the case. The mere fact that the money costs nothing to produce does not mean that it has no value to those who receive it. As it is legal tender, it will be received by everyone in the country as full payment of all debts and so it performs the first function of money, that of being a medium of exchange. But inconvertible paper money has two great drawbacks:—

(1) it is liable to fluctuate in value, i.e. its purchasing power can vary enormously from time to time with the rise and fall of the general price level. The French franc and the Italian lira are good recent examples of such fluctuation.

(2) it has, as a rule, no value outside the country in which it is issued. It is therefore of no use in international trade. The merchants of other countries will not accept money which they cannot use and which they cannot exchange for gold.

Before the war the use of this kind of paper money was for the most part confined to the smaller and poorer countries such as Greece or certain of the South American republics. Bank of England notes were inconvertible from 1797 to 1821 as a consequence of the heavy drain of gold during the great French wars. The French Revolutionary Government issued paper money called **Assignats** from 1789 to 1796. The issue of inconvertible paper which went by the name of **Greenbacks** was commenced in the United States in 1861 on the outbreak of the Civil War.

The idea that an inconvertible paper currency was something inherently dangerous and a mark of political weakness and instability has been falsified by the experience gained during the Great War and the years which have followed the Peace of Versailles. An inconvertible paper

currency if issued without limit and without proper safeguards can have very serious consequences, but, if the issue is strictly limited and covered by adequate reserves, it may be a perfectly sound form of money. When in August of 1914 the British currency notes were for the first time issued, it was deemed necessary to make them convertible.

> "The holder of a currency note shall be entitled to obtain on demand, during office hours at the Bank of England, payment for the note at its face value in gold coin which is for the time being legal tender in the United Kingdom[1]."

This clause was never operative because there was no point in exchanging currency notes for gold sovereigns when those coins were not in circulation. In order, therefore, to maintain the paper currency on a par with gold recourse was had to the second of the two methods mentioned on p. 126, viz. regulation of the amount issued, or rather of the amount of the *fiduciary* issue.

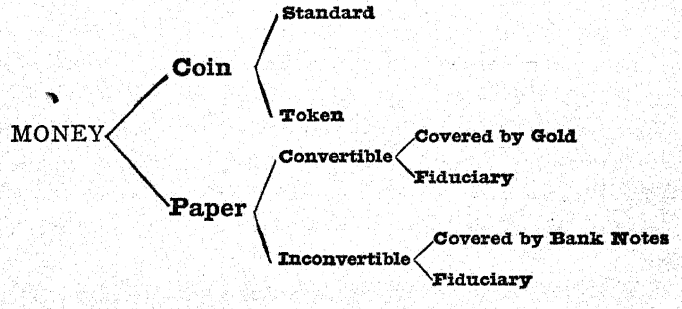
The term *fiduciary* needs some explanation. The British currency notes are fully covered by reserves consisting partly of Bank of England notes and partly of Government securities. The part not covered by bank notes is called the *fiduciary issue*. If, for example, the total issue of currency notes on a particular day were £295,000,000 and of this some £55,000,000 were covered by bank notes, the fiduciary issue would be £240,000,000. The term fiduciary also applies to the 19¾ millions of Bank of England notes which are not covered by a reserve of gold. The legal maximum of the fiduciary issue is fixed for each year by the Treasury, the practice being for the actual maximum of one year to become the legal maximum of the next

[1] Currency and Bank Notes Act, 1914.

The legal maximum for 1927 is just over £247,000,000. For 1926 it was just under £248,000,000, so that it can be seen that there is a tendency to diminish the fiduciary issue a little year by year.

The Gold Standard Act of 1925 repealed that section of the Currency and Bank Notes Act of 1914 which had made the currency notes convertible, so that from that time they have been legally as well as practically inconvertible.

This section on money may well be closed with a table of the various forms of money which have been here described.



Credit.

Money is not the only medium of exchange. Goods are often paid for by Cheque or by Bill of Exchange. These, however, are not in themselves an equivalent for the goods such as money would be, they are not payment but promises to pay. Yet business men are willing to receive them. How can this be explained?

(1) They have confidence in the person who has given them the cheque or the bill, believing that when they demand the promised money they will get it.

(2) On the strength of the promises made to them they are able to make similar promises to others.

Since this method of facilitating exchange is based on confidence or trust in the honesty and ability to pay of the person who makes the promise, it goes by the name of **Credit.**

A distinction, however, must be drawn between the popular sense of the term and that in which it is used by business men. Many people look upon credit as a convenient way of buying things without having to pay for them at the time. One frequently hears that a certain tradesman will give three months' credit or will allow a certain discount if cash is paid. This merely means that he is willing to meet his customer's convenience by waiting three months for his money, while the customer on the other hand is willing to pay in three months' time rather more than would be necessary if he paid cash for the goods at the time of purchase. The tradesman has rendered the customer a service for which the latter is willing to pay.

The business man on the other hand regards a sale for credit as an incomplete transaction. He has parted with his goods but has received nothing in return. No exchange has in fact taken place. Such a transaction therefore is a sale only in name, and during the period that the seller has to wait for his money, he may be said to have lent the goods to his customer.

A credit transaction may take one of two forms. There may be a written promise to pay or there may be none. The tradesman who gives three months' credit asks for no written promise; he has confidence that his customer will pay in due course and experience has taught him that even if he is sometimes kept waiting for his money his confidence is as a rule not misplaced. There is, however, in this respect a great difference between trade which is carried on between people in the same neighbourhood or

district and that between people in different countries. In the latter case it is usual that the buyer makes a definite promise to pay at a specified time in a document known as a **Bill of Exchange.**

Bills of Exchange.

The operation of *bills of exchange* is too technical a question to be dealt with in the present book. It must suffice to point out very briefly what a bill of exchange is and why it is used in the world of commerce.

In **Foreign Trade** payment for goods bought is not so simple a matter as it is when buyer and seller both live in the same country. For instance, a German merchant in Hamburg sells goods to a customer in London. How will he be paid? The London importer could of course send English money to Hamburg but (1) the German merchant cannot use English coins in his own country, and (2) the cost of sending the money would add considerably to the cost of the goods. The bill of exchange gets over both these difficulties. This will become clear if a second transaction is added in which an English merchant sells goods to a customer in Hamburg.

A in Hamburg sells goods to *B* in London.

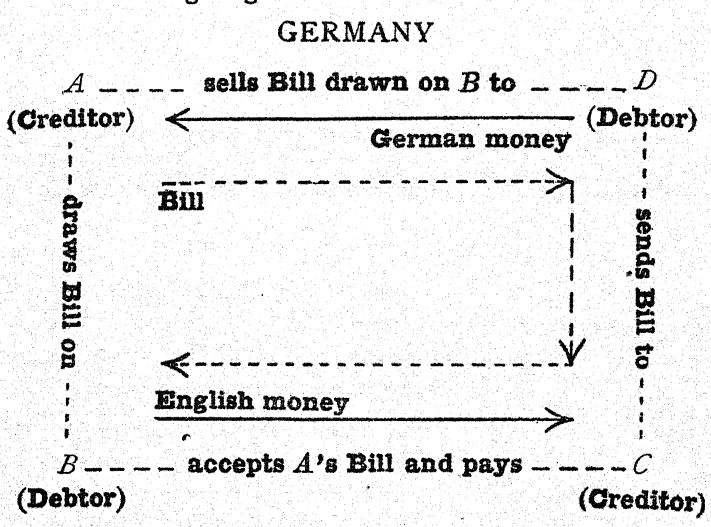
C in London sells goods to *D* in Hamburg.

For convenience it may be assumed that the amount of the invoice was in each case £1000. *A* starts by drawing a bill of exchange on *B* for £1000 payable at a future date, say three months hence. When *B* has "accepted" the bill by writing his name across the front of it, he has in effect given a promise to pay £1000 on a certain day to the person named by *A* in the bill. The three months' credit that *B* is allowed will enable him to get the goods and probably to sell them again before he is required to

pay for them. In this way his business can be carried on with a great saving of capital.

But there is the other transaction through which *D* has to pay *C* £1000. *D* does not want to have the expense of sending gold and *C* does not want to be paid in German money. How can this be avoided? The bill drawn by *A* now comes in useful. *A*'s bill was really the right to receive £1000 of English gold in London, and this is exactly what *D* wants in order to discharge his debt to *C*. *D* therefore buys *A*'s bill and sends it to his creditor *C* who collects the money from *B* when the bill falls due. Thus *A* is paid in German money by *D*, and *C* is paid in English money by *B*, and the claims of the creditors in both transactions are satisfied through the operation of a single bill of exchange without any sending of money from the one country to the other.

The use of bills of exchange in foreign trade is shown in the following diagram :—



The following points about bills of exchange should be carefully remembered:—

1. They give the owner the right to receive a specified sum of money at a given place and time and this right can be bought and sold[1].

2. They provide a cheap and convenient way of paying debts incurred in a foreign country.

3. They enable a merchant to be paid for goods sent abroad in the money of his own country.

Payment by Cheque.

A cheque seems to differ in many ways from other credit instruments. At first sight it seems to be only another form of money. A person who gives a cheque at the time of purchase is said to pay cash. The tradesman regards it as a cash transaction. The cheque is an order to the banker to pay a certain sum on demand and does not contain any condition of postponed payment such as is to be found in the bill of exchange. This is true: a cheque certainly resembles money inasmuch as when it is given in payment, to all intents and purposes the transaction is complete. But is it really complete? The cheque is equivalent to a promise to pay and the fulfilment of the promise can be claimed at the bank immediately after the cheque is received. A short interval must certainly elapse, but that is of no real consequence. The essential point to notice is this—if the receiver of the cheque takes it to the bank on which it was drawn and cashes it, i.e. is paid money for it, or if he deposits it with his own banker and the sum in question is placed to his credit in the books of the bank, so far as he is concerned the transaction is complete and it may be said that the

[1] Buying and selling of bills of exchange takes place in London at the Royal Exchange, in continental cities at the Bourse.

cheque was as good as money. But a cheque is not money and this can easily be shown :—

(1) A creditor is not bound to take the cheque—it is not legal tender.

(2) A cheque can seldom make more than one payment; it does not pass as money does from hand to hand, it has not general acceptability.

(3) A cheque is accepted as payment owing to confidence in the person who offers it; money is always taken without question.

(4) The transaction is complete only so far as the payer and receiver are concerned. The work of the banker has still to be done[1].

A cheque therefore does not fulfil the requirements of money, and, being based on confidence, must be regarded as a form of credit.

Payment by cheque is in England extremely general, much more so than in the continental countries. It is extremely convenient. It does away with the necessity of keeping large sums of money at hand, and the counterfoil of the cheque book is always a register of the payment made. It is a substitute for money and thus enables the trade of the country to be carried on with a much smaller amount of gold. A cheque is also a convenient form in which to receive payment. It may have been drawn on a bank thousands of miles away but all trouble of presenting it for payment is performed by the banker, with whom the person receiving it has a banking account.

[1] An explanation of English banking and of the working of the cheque system would take us somewhat outside the limits of the present work.

BOOK IV

THE INDIVIDUAL INCOME

CHAPTER XI

THE PROBLEM OF DISTRIBUTION[1]

"All wealth that is created in society finds its way to the final disposition of the individual through certain channels or sources of income. This process is called Distribution." SELIGMAN[2].

MAN'S economic effort is, as has been shown, devoted to the getting of an income. But when men work in industrial groups and the effort is consequently a collective one, the result takes the form of a joint income which represents the sum of the incomes of all the members of the group. A further process is therefore needed, viz. **the Distribution of the joint income** among the various members of the group, and the determination of each person's particular share[3]. Here arises the great difficulty —what is the share of each? The answer to this question seems clear and simple—each one is entitled to a share of the joint product proportioned to his share in the effort. But this is where the real difficulty lies. How is it possible to separate the result of each man's effort from that of the effort of the group? One man has worked as an engineer, another as an invoice clerk; one has been engaged in some process of manufacture, another in conveying the finished

[1] The subject of Distribution is a somewhat difficult one, but the preceding chapters have been preparing the way for it, and if they have been thoroughly understood (more especially Chapter IX which deals with the Theory of Value) even the most difficult parts of Book IV will be readily grasped.

[2] See footnote to page 56.

[3] See diagram on page 172.

goods to the warehouse. It would be difficult to determine what each of these has contributed to the final result. It is one thing to say that each worker is entitled to "the whole produce of his labour," it is another to discover what that produce is. In modern industry a worker seldom produces anything which can be said to be the result of his own unaided effort; it is difficult, therefore, to distinguish between what is due to him and what to those who have worked with him or have supplied him with the materials, etc., for his work. The case of the peasant proprietor presents no such difficulty. It may be assumed that he farms his own land, that he does all the necessary work and that he owns seed, stock and implements. The relation between effort and income is readily seen. He sells his crop or his dairy produce as the case may be; he keeps back as much of the proceeds as is necessary to replace seed and stock, and to repair his buildings and fences; the remainder is the income resulting from his effort. But such a condition of industry is far from typical at the present day, at any rate in the more industrial countries of the world. Large numbers of men work together in the same factory or mine, under another man's direction and control, in buildings owned by someone else, and with materials, machinery and tools which are not their own. Landowners, capitalists, employers and workers have all contributed to the production of the wealth and all will receive a part of it as income. It is by no means clear, however, what any one of these has contributed to the final result, or to what share of the produce he is entitled.

Before the Industrial Revolution the problem of Distribution was a comparatively simple one. Under the *Domestic System* the craftsman was an independent producer, and those whom he employed would in the ordinary course of things become masters in their turn. But the development of *Capitalism* changed all this. The craftsman

became a wage-earner; industrial society split up into two classes—employers and employed; the interests of Capital and Labour showed themselves to be antagonistic to one another, and the question of Distribution became the most pressing and the most difficult of economic problems[1].

The claim to a share in the income resulting from any particular business undertaking is based on service rendered, i.e. on the part taken by the individual in the industrial effort as a whole. These services are not all of the same importance and hence are not all equally rewarded. Dissatisfaction therefore easily arises. Some will think that their own particular services are undervalued and that other people are receiving more than their proper share of the joint income. This is the cause of the great conflict between Labour and Capital and of the feeling of injustice which is at the bottom of what is called "Labour Unrest." The members of the employed class as a whole think that the services of the capitalist are too highly rewarded and that their own incomes are in consequence smaller than they ought to be. This is not the place, however, to discuss the question of justice or injustice, notwithstanding its supreme importance. We must concentrate our attention on the act of distribution and attempt to answer three questions:—

I. What exactly is there to distribute?

II. Who are entitled to a share?

III. What determines the amount of each individual's share or income?

I. The answer to the *first* question can be given in very few words—That only can be distributed which has been produced. It was explained in Chapter III[2] that production does not mean the creation of new objects but

[1] Adam Smith writing before the Industrial Revolution makes hardly any mention of **Distribution**; John Stuart Mill writing after the Revolution had taken place, attaches the greatest importance to it.

[2] See page 12.

of new utilities. In one of the examples there given, the productive effort resulted in the additional utility which the table had over that of the wood, etc., which existed before the work was commenced. This can now be expressed in terms of money. If the wood, etc., used for the table cost 15*s.* and the table sold for £2, that which was produced had a money value of 25*s.* If, again, the table resulted from the joint effort of a group, 25*s.* is what could be distributed among those who shared in the effort and 15*s.* would be devoted to what is called the replacement of capital.

It will be well, however, to take an example of a more advanced character. A factory turned out goods in the course of a year which sold for £50,000. The raw material, fuel, etc., used in the process of manufacture cost £10,000 and had to be replaced. Tools and machines were partly worn out, and most of them, it was well known, would have to be replaced in a few years' time, because, even if not worn out by then, they would be old-fashioned and would have to be discarded. A sum had therefore to be set aside at the end of the year for "depreciation," which in the present example amounted to say £5000. Thus £10,000 was needed to replace the circulating capital and £5000 had to be set aside towards replacing the fixed capital. There remained a sum of £35,000 which was available for distribution among those who had contributed to the manufacture of the goods. In this case, £50,000 is said to be the Gross Product, £35,000 the Net Product.

GROSS PRODUCT

Replacement of capital	NET PRODUCT

The question can now be answered in other terms. **The amount which can be distributed as income** among those who have taken part in any industrial enterprise **is the net product of the industry.**

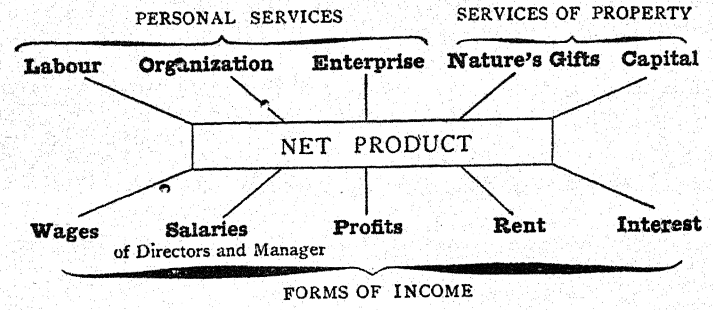
II. A very natural answer to the *second* question would be. Those are entitled to a share of the net product who have contributed to the productive effort. There is, however, some difference of opinion as to who those contributors are. Some think that those who can be seen taking part in the work of the farm, the factory or the office, are the only contributors; others consider that those should be included who have in any way assisted either by personal service or by placing their property at the disposal of the workers. If we bear in mind what was said in an earlier chapter[1] about the requirements of productive effort, we shall recognise that those who provide the requirements are rendering an indispensable service to production. This service must be remunerated or it would not be forthcoming. All the incomes which are derived from the net product of the business are payments for service, and without service rendered there is no income.

The requirements of productive effort, it will be remembered, are five in number, viz. the three forms of human activity—Labour, Organization and Enterprise, and the two external aids—Nature's Gifts and Capital. In the Joint Stock Company, which may be taken as the type of modern industry, these services are rendered by employees, employers, shareholders[2] and landowners.

[1] Chapter IV.

[2] The shareholders render a two-fold service: they take the risks and they provide the capital. The service of enterprise seems necessarily associated with capital. Those only can undertake the risks of business who have something to venture, and that something is for the most part capital. On the other hand it is quite possible to lend capital for which full security is given, in which case there is no enterprise. The two services are quite distinct, even if the remuneration for both goes to the same person.

The correspondence between service and income is shown in the following diagram.



III. The earlier economic writers took a very different view of the Problem of Distribution from that taken by most economists of the present day.

The old idea was that the whole annual produce of the industry of a country was distributed among the different classes of producers. A certain amount went to the landowners, a certain amount to the labourers and the remainder to the capitalists. But how can such an idea be realised? Adam Smith tells us that the total produce "is naturally distributed among the different ranks of people," and John Stuart Mill says that this produce "distributes itself by spontaneous action." Neither explanation is at all satisfactory. To-day we approach the problem from the other end. The net product of a particular industry or of a particular productive effort is distributed as income among those who have taken part in it. The sum of such net products throughout the whole country would be the total amount that could be distributed as income and hence would be the sum of all incomes[1]. The total income of a particular class such as the wage-earners could only be found by adding together the incomes

[1] This amount is commonly referred to as the **National Dividend** or as the **National Income.**

of all the individual members of that class. But it must be remembered that the only actual distribution that takes place is the division among the members of an industrial group of the results of their joint effort. Distribution, in other words, is the determination of the income of individuals, and not of classes.

It has been said that the net product of the productive effort of an industrial group is distributed in the form of income among the different members of it. But this must not be supposed to mean that the results of the effort are stored up and at the end of the year are distributed in lump sums to those entitled to a share. Goods are being *made* and *sold* and *used* day by day and week by week. At the end of the year there is very little more wealth in existence than there was at the beginning, but during the year all the people in the country have been consuming the goods almost as soon as they were produced. The income may have been received daily, weekly, monthly or quarterly, but some of this income was being expended every day to satisfy the wants which gave rise to the effort that was made.

The method of distribution is practically as follows:— The business organizer may be regarded as the distributor. Before the industrial effort is begun he calculates how much produce is likely to be sold and at what price. He is then able to estimate what the net product is likely to be, and his estimate being based on knowledge and experience is likely to be fairly correct. In the next place he makes bargains with landowners, capitalists and employees, taking care that what he contracts to pay them will leave a sufficient balance for the remuneration of his own services[1]. Thus two facts are clear—(1) the distribution is based on estimated product, i.e. on what the results of

[1] In the case of a Joint Stock Company where the organizers are salaried, this remuneration is a fixed amount.

the effort are expected to be, (2) the incomes, according to the terms of the contracts are paid in instalments and are not affected by what the net product actually proves to be at the end of the year. For one service only was no contract made, viz. the service of enterprise[1]. If the net product proves to have been greater than the sums paid out in rent, wages, salaries and interest, a surplus remains which is the reward of enterprise, if on the other hand the net product proves to have been less, then the loss falls on those who would have received the surplus if such had existed.

The incomes which the business organizer has contracted to pay are the rewards of services. **Services, like commodities, have a market price,** and that market price is determined by the interaction of the forces of Demand and Supply. The terms Demand and Supply are frequently used in reference to land, to labour, to capital and to business capacity. The reward of any particular service is not determined by the organizer, though, like any other buyer, he has a maximum price which he will not exceed; nor is it determined by those who render the service, though like any other sellers, they have a minimum price for their services without which they will not render them. Between these limits the price of the particular service will be fixed according to the relative conditions of Demand and Supply existing at the time.

There is one other aspect of the individual income that should not be lost sight of, viz. that income is frequently derived from more than one source—is frequently a reward for more than one type of service. Just as the productive effort of an individual may be made either as an independent worker or as a member of an industrial group, so the individual income may be either the whole of the net

[1] In the case of a private undertaking, the organizer's salary also is not fixed by contract.

product of industry or some particular share of it. In the case of the industrial group the net product is said to be *distributed* among those who in different ways have taken part in the effort in question, and according to the market value of the service rendered by each.

The income of the independent producer consists in reality of several parts, but it would be difficult to separate any one part from the rest. The most typical example, perhaps, is the peasant proprietor, whose income, as was shown earlier in the chapter, is the whole of the net product of his industry. Since, however, he provides land, capital, labour and enterprise, his income really consists of four parts—rent, interest, wages, and profits, though, as a matter of fact, he is not likely to draw any distinction between them.

Turning to the incomes of the members of an industrial group, we shall have no difficulty in finding examples in which the individual income consists of more than one share. The tradesman, for instance, often renders the services of capital and enterprise in addition to those of labour and organization, and his income = interest + profits + salary or wages. The farmer may own the land he cultivates, he may supply the capital, organize the industrial effort and undertake all risks; in short, he may supply everything except labour. In such a case his income is really rent + interest + salary + profits, but it is doubtful if the farmer, any more than the tradesman, could state the actual amount of each portion of his income.

This fact then is clear—the individual income consists of one or more of the five shares in distribution, though, in the case of a composite income, it frequently happens that no clear line is drawn between its component parts. For our purpose, however, it will be well to assume that in all cases the five forms of income—wages, salaries, profits, rent and interest—are quite distinct from one another and

are capable of definite measurement. Each form is understood to be the reward of a particular service which at any given time and place has its own market value.

The question of Distribution is here treated in very general terms and in consequence much that is important to notice has been omitted. An attempt, however, will be made to remedy this in the following chapters in which the different forms of income will receive separate treatment.

CHAPTER XII

RENT

"Rent, considered as the price paid for the use of land, is naturally the highest which the tenant can afford to pay in the actual circumstances of the land." ADAM SMITH[1].

THE term **Rent** is in very general use and there seems to be very little uncertainty as to its meaning. In the ordinary way we should probably define it as "The amount paid by the tenant to the landlord for the use of land or houses." The chief points then in our ordinary conception of rent are:—

(1) that it applies equally to houses and to land;

(2) that it implies the relation of tenant and landlord.

The economist, however, attaches to the term *rent* a somewhat different meaning. In the first place, he associates rent exclusively with the Gifts of Nature, and regards it as an income arising from the productive employment of any natural agent such as land, mines, water-power,

[1] See footnote to page 56.

etc. This restricted use of the term is general amongst English economic writers[1], but many foreign economists would extend it to cover the income derived from the use of other forms of property. The English economist would not regard as rent the whole of the annual sum paid for the use of a house, a shop or a factory. He would divide it into two parts and say—part of this sum is for the land on which the building stands, and part is for the builder's outlay of capital. The former part only is of the nature of rent, the latter part should be regarded as interest.

In the second place, the possession of a natural agent, such as land, may bring the owner an income in one of two ways:—(1) he may utilize it himself in some form of productive effort and so get an income from the sale of the product, or (2) he may let it to a tenant and so get an income in the form of a fixed annual payment. From this it is evident that the relation of landlord and tenant is not essential to the idea of rent. Rent does not cease to exist when the landowner cultivates his own land.

In order to get some clearer ideas as to the nature and measurement of rent we shall do well to concentrate our attention on the most typical Gift of Nature, viz. *Land*, and more particularly at present on one use of land, viz. the agricultural.

So far, with regard to the rent of land the following points have been established:—

(1) Rent is one of the shares in distribution, i.e. it is a part of the net product of industry.

(2) It arises from the productive use of land.

(3) It is a return for the services rendered to productive effort by the landowner.

[1] "The income derived from the ownership of land and other free gifts of nature is commonly called Rent." Professor A. Marshall, *Economics of Industry*.

The net product of any particular farm may be assumed to be due to

(*a*) the fertility or situation of the land,

(*b*) the application of capital,

(*c*) labour,

(*d*) the farmer's skill and enterprise.

Each of these then will be rewarded out of the result of the combined effort. That a part of the produce is due to the natural agent becomes evident when we compare the results of farming different pieces of land. The application of a certain amount of capital, labour, etc., to one farm may result in a yield of 20 bushels of wheat to the acre, but the same application to another farm may bring half as much again. The difference is due to greater fertility; the land has rendered more service to production in the one case than in the other and the share of the produce which forms the income of the landowner varies according to the productivity of the land.

The earlier economists thought that the rent of land was a thing by itself, and that it was determined by its own special laws. They therefore formulated what is called the *Theory of Rent.* This theory has more especially been associated with the name of Ricardo[1]. He used the term Rent in its very narrowest sense. "Rent," he says, "is that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil." But in a country like England, where the land has been cultivated for centuries, and where all the land used for agricultural purposes has been improved by the frequent application of capital, it is impossible to

[1] David Ricardo, one of the most distinguished of the English classical economists, born 1773, died 1823. Most famous work, *Principles of Political Economy and Taxation* (1817). Noted for his very abstract treatment of the subject and for his theories of Value and Rent.

know how much of the produce is due to the "original and indestructible powers of the soil" and how much to the improvements made. It is only in districts like the prairies of the Canadian Middle West where land can be cultivated in its natural state, that it is possible to find out how much of the produce is rent in the Ricardian sense of the term. Rent for all practical purposes must be regarded as the landowner's income arising from the use of the productive powers of the land, whether these powers are "original and indestructible" or the result of permanent improvements.

It was said earlier in the chapter that possession of Nature's Gifts may bring the owner an income in one of two ways: that the owner of land may obtain an income

(1) by **cultivating** the land,

(2) by **letting** it to a tenant.

Here we have two kinds of rent, the distinction between which is of the greatest importance. The income which is derived from the cultivation of land may be called **economic rent.** It is the surplus which remains to the cultivator after he has paid all expenses of cultivation and has remunerated himself for his own productive effort. Rent in this sense may be said to measure the excess of the value of the crop over the expenses of its production.

The rent which is paid by the tenant to the landlord may be called **contract rent,** because it is determined by a contract between the two parties concerned. When a farm is cultivated by a tenant, it is he who gets the surplus which is due to the fertility and situation of the land, or in other words, the economic rent. Because of this he is willing to pay an annual sum (not exceeding the economic rent) to the landowner for the use of his land. The sum he pays is really the price of the advantages he expects to derive, and like every other price it is determined by the interaction of the forces of Demand and Supply.

Economic Rent. Some difficulties may present themselves with regard to the measurement of the cultivator's surplus to which we have given the name of *economic rent.* In order to clear these up let us take a practical illustration. Three farms, *A*, *B* and *C* were cultivated by farmers (either owners or tenants) of equal capacity. The crops from the respective farms realized £1000, £800, £600, and the expenses of production were £850, £700, £550. Thus from farm *A* there was a surplus or economic rent of £150, from farm *B* of £100, from farm *C* of £50. These facts are represented in the following table:—

	Farm *A.*		Farm *B.*		Farm *C.*	
Produce sold for		£1000		£800		£600
Expenses of cultivation including replacement of capital	£600		£425		£290	
Cost of sending produce to market	50		75		60	
Income for farmer	200		200		200	
Total expenses of production		850		700		550
Producer's surplus		£150		£100		£50

If the amount of produce derived from a particular farm were always the same and the prices of such produce did not vary, to estimate the economic rent would be a very easy matter. But such is not the case; crops and prices vary enormously. The crops vary according to

(*a*) the skill of the farmer,

(*b*) climatic conditions.

Prices vary according to the state of the market. One year there may be a large surplus and another year there may be little or no surplus, there may even be a considerable

deficit. Are we to conclude then that economic rent may one year be some hundreds of pounds and another year a minus quantity? Not at all. The expenses of production, wages of labour, etc., are based on a calculation that, taking one year with another, the produce will be sufficient to pay these expenses and to leave a producer's surplus. Similarly to arrive at any measurement of economic rent we must take average crops and average prices, while with regard to differences of skill on the part of the farmers allowance must be made under the heading of "Income for farmer," this item being larger in the case of a good farmer and smaller in the case of a bad one. It will however be at once apparent that this measurement of economic rent can never be quite exact, it can never be more than an estimated amount. Let us suppose for example that farm *A* is cultivated by the owner, and farm *B* by a tenant. It is quite possible to work out exactly the sum realized by the sale of the produce and the expenses of production and marketing, but the income of the farmer is not a fixed sum. In the examples given it was assumed that each farmer got £200, and that if he did so the economic rent of farm *A* would be £150, and that of farm *B*, £100. But since the cultivator is not paid any definite sum, we are obliged to fall back upon some estimate as to what income farmers of ordinary ability do as a rule obtain and make this the basis of our calculation. When the ordinary expenses of production have been paid the surplus consists of two parts—the farmer's income and the economic rent. In the case of farm *A* the entire sum goes to the owner because he is himself both farmer and owner, but in the case of farm *B* farmer and owner are different persons. In the former case it makes no difference how the shares are fixed, but in the latter it is all important, and it is settled by the tenant paying to the landlord an annual sum fixed by contract for the advantages which he

expects to derive from the use of the land, the remainder being the reward of his services as farmer.

Thus *economic* rent is not that payment by a tenant to his landlord which in ordinary everyday life we speak of as rent, but it is the surplus which remains to the producer for which if he is a tenant, he pays a compensation to the landlord in the form of *contract* rent. Economic rent can only be expressed as a definite sum if the farmer's income is known, but in any case an estimate of economic rent can be made with sufficient exactness to form the basis of the contract between landlord and tenant.

Contract Rent. Without this enquiry into the character of *economic rent*, it would have been very difficult to understand how *contract rent* is determined. It has already been noticed that the amount paid by the tenant to the landlord is in reality the price of certain special advantages either of fertility or of situation. Just as in the case of the price of commodities, there are two sides to the question: The Demand side (i.e. the point of view of the tenant), and the Supply side (i.e. the point of view of the landlord). These must be examined separately before we can attempt to answer the question, how is rent (i.e. *contract* rent) determined?

Demand for the Use of Land. Bearing in mind the statement made in Chapter IX that there is no such thing as Demand apart from price, we may say that the farmer is willing to take a farm at a certain rent because he thinks that if he were to cultivate it he would be able to pay all expenses, to get an income for himself and to have a sufficient surplus to enable him to pay the rent that has been asked. This surplus, which is in reality his estimate of the economic rent, is the utmost that he would be willing to pay. It is his *maximum* price. Good land yields a larger surplus per acre than bad land, the tenant's maximum will therefore vary with the character of the soil.

Other considerations which will influence the tenant's maximum are the facilities for marketing his produce and the price he is likely to get for it.

There is a demand for the use of land, because there are advantages to be derived from its cultivation, or, in other words, because of its productivity. The greater the productivity, the greater as a rule will the demand be, and *vice versa*.

Supply of the Use of Land. The landlord has various uses to which he can put his land. He can cultivate it himself, he can turn it to some purpose of pleasure or sport, he can let it to those who will pay him a rent for its use. If he chooses the last, as he does for the most part in a country like England where there are but few small owners, there is said to be a *Supply* of the use of land. But the supply depends on the price, i.e. on the rent he can get. If there is little demand for the use of land and rents are low, it is very probable that in some cases the landlord will himself cultivate farms that were previously let to tenants.

What rent will he expect to get? Like the tenant he will make an estimate of the surplus likely to result from the cultivation of the land, an estimate that is of the economic rent. He knows that all farmers are not equally skilful and that they would not put the land to precisely the same use. He knows that crops and prices vary from year to year. He therefore takes all these things into account and calculates what the surplus would probably be if

(1) the farmer were a man of average skill,

(2) the land were put to the use for which it was most suitable,

(3) crops and prices were about an average,

(4) the farmer received as income what might be considered as the ordinary remuneration,

It is very possible that his calculation will not be the same as that of the tenant, for the latter estimates what surplus he personally is likely to obtain, and attaches a definite value to his own services. The landlord's calculation, based as it is on average conditions, would enable a farmer above the average to earn a larger income, while it would enable all farmers to set the good years against the bad, and on the average to earn an income that would be a sufficient inducement to them to continue farming the land. If the landlord failed to get this rent, he might be willing to take a smaller sum rather than have the farm unlet, but he has a *minimum* below which he will not go, viz. the rent at which he would only just be induced to let the farm. If he failed to get this minimum he would doubtless cultivate the land himself or put it to some other use.

The Determination of Contract Rent. The bargaining which takes place between landlord and tenant very closely resembles Example V in Chapter IX[1], in which there was only one seller but two buyers. The scarcity of land often makes the landlord in question the only person from whom land can be rented in his particular neighbourhood, while there may be many persons anxious to take the vacant farm. Under such circumstances the landlord's position is a very strong one and it is very probable that he will be able to get the rent he asks. If the demand for farms is very brisk he will probably be able to raise his price till it reaches the maximum of the strongest applicant, if, on the other hand, there is little demand, he may have to lower it to his own minimum.

There is a close connection between rent and the price which the produce fetches in the market. When the prices of the different kinds of farm produce are high, farming becomes more profitable, with two results—(1) the tenant's maximum is raised, (2) the demand for farms is increased.

[1] See page 196.

Thus the rent is likely to go up, for, owing to the increased demand, it will probably be forced up to the new maximum. On the other hand, when prices are low, farming becomes less profitable, the maximum is lowered, demand falls off and rents tend to decrease.

In conclusion it may be said that as the supply of land is limited and as the demand for it in an old country seldom falls short of the supply, **the price paid** for its use **tends to approximate to the producer's surplus**, i.e. to the *economic rent.*

The whole of this argument has been based on the assumption that landlord and tenant are business people, each knowing and seeking his own interest, each bent on securing the greatest possible advantage from the bargain. There is however one important consideration which must not be overlooked. Landlords frequently do not regard the letting of their farms merely as a business transaction, and even when they do, they are not always what would be called "good business men." The consequence is that from considerations of custom or sentiment, or from absence of practical knowledge and bargaining skill on the part of the landlord, farms are often let at rents below those which could be obtained under conditions of ordinary competition.

Ground Rent. We have so far confined our attention to the rent of land used for agricultural purposes. It now remains to say something about another kind of rent, viz. the rent of land used for building sites. Here again we have the same distinction as before. There is ground rent which we may call *economic* because it is the surplus to be derived from the use of the land for building purposes, and there is ground rent which may be called *contract* because it is the amount fixed by contract between landlord and builder. If the landowner builds a house on his own land, he may be said to derive an economic rent from its use, inasmuch as he enjoys all the advantages which

are obtained from that land. But if he lets the land to a builder for a period of say 99 years, it is the builder who gets that economic rent for a specified period and pays to the landlord an annual sum or *contract rent*, the amount of which is fixed by bargaining between the two parties. It is this fixed money payment which alone as a rule goes by the name of **Ground Rent**, though strictly speaking the term should equally apply to the net advantage to be obtained from this use of the land by the landowner himself.

The economic rent as before forms the basis of the contract. There is a demand for the use of the land for building purposes because of the net advantage to be derived, and the greater the advantage, the greater the demand. The main advantage is that of situation; but land in a particular situation is strictly limited in quantity, the landlord is not likely, therefore, to supply his land unless he gets a full equivalent for the advantages he forgoes by allowing someone else to build on it. Under these circumstances it may in general be assumed that the ground rent paid by the builder represents, as nearly as can be estimated at the beginning of so long a period as 99 years, the economic rent of the land.

Where for any reason, such as the growth of a town, or improved railway or other communication, there is a great increase in the demand for houses, shops or factories in a particular neighbourhood, the ground rent tends to rise. This makes many people desirous of buying such land and its value becomes considerably increased. This increase in the market value of the land due to what is called "the progress of society" goes by the name of **the Unearned Increment.**

CHAPTER XIII

SALARIES AND WAGES

"The sum which it will be possible for the *entrepreneur* to pay in wages of labour is limited by the advantages which he derives from that labour." PIERSON[1].

OF those who contribute to the productive effort of an industrial group, some play what may be described as the more passive part, while others assist actively in the various departments of the business. To the former class belong landlords and capitalists as such, to the latter belong the various classes of workers, from the heads of the firm or the directors at one end of the ladder, to the youngest "half-timer" at the other.

The workers may roughly be divided into **four classes**:—

(*a*) **Business organizers.**

(*b*) **Higher paid workers** such as managers of departments, chief clerks, etc.

(*c*) **Skilled labourers.**

(*d*) **Unskilled labourers.**

Each worker derives from the net product an income which for convenience may be described either as salary or as wages. Between these two terms there is probably very little real difference of meaning; a usual distinction to make, however, is to regard salaries as being reckoned by the year, and wages by shorter periods (such as the hour, the day or the week), or even by the amount of work done.

[1] Dr N. G. Pierson, a Dutch economist and statesman, formerly Prime Minister of Holland.

At first sight it seems as if the incomes of employer and employed would necessarily come under separate heads, but as a matter of fact this would be making a very artificial distinction. In each case the income is a reward for personal effort; such effort may be of many different kinds and be very differently rewarded according to circumstances, but all the same it is the part played by *man* in production, and the income is a payment for the services he renders.

Income of the Business Organizer.

The distinction already drawn between the two forms of business enterprise—the Private Business and the Joint Stock Company—needs to be borne in mind when dealing with the incomes of those who are responsible for the conduct of business. In the latter case the income of the business organizer takes the form of a salary or fixed annual payment, though he may in addition receive some part of the profits. In the former case the business organizer owns the business, so he can hardly be said to pay himself a salary. A part of his income is undoubtedly a payment for the work of organization, but he does not receive any definite sum for such services. If the business failed to yield him such an income as he thought his abilities ought to command, he would probably consider the desirability of taking up some other business. This distinction may be summed up as follows:—Business Organization is a service rewarded by a share in distribution. The organizer adds to the productivity of the industrial effort and theoretically his income is that part of the produce which may be said to be due to his own effort. In the private business this is not distinguished from the rest of his income and therefore seems incapable of accurate measurement. In the case of the Joint Stock Company it is different. There the organizer's ability is regarded as

having a market value and his salary depends on the demand for his services and the available supply of persons capable of doing the work. Such a salary does not necessarily equal the amount which may be said to have been added to the product by him. It cannot exceed that amount but it may fall considerably short of it.

Salaries in General.

The incomes of the various salaried members of an industrial group—such as managers of departments, officials, higher paid clerks, etc., may be conveniently divided into two groups according to the qualifications necessary for the different posts.

(i) For some positions a high degree of skill, of knowledge, or of experience is required. According to the rarity of such qualities so will be the remuneration. The supply of men and women capable of undertaking the work is often limited by the expense of training and by the lack of opportunity of gaining the needed experience. The salaries of such posts vary enormously but are frequently high.

(ii) For the majority of salaried positions a good general education is the first requirement. In addition, a certain acquaintance with business routine, a capacity for directing the work of others, or an intimate acquaintance with the practical side of factory or workshop, would probably be needed. But the supply of workers so qualified is often very large, far larger at times than the demand. The salaries of such posts are therefore correspondingly low, but low as the salary very often is, for every vacancy there will frequently be hundreds of applicants.

Wages of Skilled Labour.

A hundred years ago economic writers as a whole believed that wages were always at the level of bare subsistence. and that they were kept there by economic

forces which could not be hindered or turned aside. Wages were certainly very low in those days, often hardly enough to provide the workers with absolute necessaries. This was the result of unrestrained competition. A rapidly increasing population overstocked the labour market, and a badly administered Poor Law[1] weakened self-reliance and self-respect. To improve the conditions of labour and more especially to put an end to that competition between the workers which was one cause of the deplorably low wages, the Trade Union movement was set on foot. By combination working men were able to put a reserve price upon their labour, their bargaining power was greatly increased and as a consequence higher wages were obtained. Skilled labour is so well organized to-day that in many trades the wage contract is not settled by a private bargain between employer and employed but by collective bargaining between the Association of the employers and the Trade Union officials.

Wages of Unskilled Labour.

It was a long time before unskilled labour benefited at all by the advantages to be derived from combination and organization, and even at the present day it is only in a few of the unskilled trades that Unions have been formed. Even where there is organization the wages of such labour are very low because the work, requiring no skill or training, can be done by anyone possessing the necessary physical strength and the most ordinary intelligence. In cases where there is no Trade Union, the unskilled worker must make the best terms he can for his labour, and as the labour market is always overstocked,

[1] Under the so-called Speenhamland Act of 1795, the Justices of the Peace were empowered to supplement wages by making "allowances" whenever the wages fell below a certain sum. The labourer, in consequence, was often ready to take an extremely low wage, because he knew it would be made up to him out of the Poor Rates.

the wages he can command are hardly likely to provide him with more than the barest necessities of life, while employment is very irregular.

THE REWARD OF LABOUR.

The determination of wages is a subject which needs very careful study. Wages are a payment for certain kinds of service. Such services have a market value, and this value depends on the interaction of Demand and Supply. The forces which influence Demand and Supply must be considered at some length before the results of their interaction can be finally discussed.

The Demand for Labour.

The demand for labour closely resembles the demand for commodities in general. Employers demand labour because they expect to obtain some satisfaction or advantage from so doing. The number of workers that any employer would engage depends on what he has to pay them for their services. If they ask more than their services are worth to him he refuses to employ them. Thus the demand for labour depends on the wage asked, and (as explained when dealing with the Theory of Value) there is no such thing as demand for the services of labour without reference to the price of such services.

The amount of advantage which an employer derives from engaging any particular worker is the difference between what that worker adds to the net product and what he receives as wages. This may be represented then as a subtraction sum:—

Net product from employing 201 men =	**£25,110**
Net product from employing 200 men =	**25,000**
Addition to product - - - =	**110**
Wages - - - - - - =	**100**
Advantage of 201st worker - =	**£10**

Generally speaking it may be assumed that an employer will continue to employ more men so long as there is any advantage to be derived from so doing. If he does so, the last man he is willing to employ is the man who adds to the product just about as much as he receives in wages. This man may be called the marginal labourer because the employer is almost in doubt as to whether he will engage him—he is just on the margin, so to speak, between employment and unemployment.

Why the additional labourers should be less profitable to the employer than those previously engaged needs explanation. We may assume that all are equally skilful, yet it is a fact that there is a limit to the number of workers that an employer will demand at any given wage. From what was said in Chapter VII as to the advantages of large scale production it would seem that the more labourers there were employed the greater would be the advantage to the employer. So it might be if the advantage consisted only in the quantity of goods produced. But the advantage comes from the sale of the goods. There is no advantage in having warehouses filled with goods that cannot find purchasers at a remunerative price. If more goods are being produced than are being sold, the price must be lowered, and this may make the additional amount of goods produced an actual disadvantage to the manufacturers. The employer therefore would be deriving a disadvantage instead of an advantage from the additional labour required, his demand for labour at the current rate of wages would diminish, and one of two things would become necessary—he must either dismiss men or he must lower wages.

To simplify the problem let us suppose that a certain firm is employing 100 men, paying them each a weekly wage of £2, i.e. roughly speaking, at the rate of £100 a year each. Trade becomes brisk, prices rise, and in

consequence the employers decide to take on more men. How many new workers will they engage? This depends on the effect which the increased supply of the commodity will have on the demand of the public for it; for if more goods were produced the price might fall, in which case the advantage of employing more men would soon disappear.

The diminishing advantage of employing more men is indicated in the following table:—

Assuming that 100 men are already engaged at £100 a year, and that more men could be secured at the same wage, it may have been calculated that

5 more men would add	**£800**	**to the product**	=	**£160**	**a man**
a second 5	,,	**700**	,,	= **140**	,,
a third 5	,,	**600**	,,	= **120**	,,
a fourth 5	,,	**500**	,,	= **100**	,,
a fifth 5	,,	**400**	,,	= **80**	,,

and so on.

The fourth 5 added per man £100, but this is the amount they were paid in wages, there is therefore no profit to be gained by employing them. If a fifth 5 were engaged they would receive more than they added to the product and hence the employers would lose by taking them on. The total number of men employed by the firm will probably be 120, that is, under the existing trade conditions their demand for men at £2 a week is 120. The last 5 added are the **marginal labourers,** and the **marginal productivity** of labour when 120 are employed is £2 a week—that is to say, the last labourer it was worth the manufacturer's while to employ added £2 a week to the product.

The actual profit derived from engaging the last 5 men was nil, but the advantage of employing 120 men may have been considerable.

Profit when 115 men employed estimated at	£5000
" " 120 " " "	5000
Additional profit	nil.

The profit of £5000 suggests a very prosperous state of affairs, and if this is not peculiar to the business in question, but is fairly general throughout the trade, the workers as a body, acting through their Trade Union, are likely to demand higher wages. They refuse to work for less than £2. 10*s.* a week (roughly speaking, £125 a year), how will this affect the demand for labour? On referring to the table we shall see that the third 5 added £120 per man; it is hardly likely then, that these would be engaged at a cost of £125 each.

The second 5 added £140 per man; the number employed therefore would not be less than 110, and, if the men were engaged in groups of 5, it would be hardly likely to go beyond this figure. The high wages are in their turn likely to cause a rise in prices and these again will affect the demand for goods and the demand for the labour required to make them.

It has been shown that the demand for labour is dependent on the profitableness of business. This depends mainly on two things:—(i) productive efficiency, (ii) price. Employers and employed are jointly responsible for the former, the market conditions regulate the latter. As has already been said, it is no use making goods, however efficient the productive effort may be, unless people are willing to buy them. Since then, in the long run only those goods will be produced for which the public is willing to pay a remunerative price, the public may be said to be the ultimate employer of labour. **Labour is the demand for labour.** It is by our labour that we get the income which enables us to demand the labour of others. The employer is in fact only a sort of middleman.

He employs labour if the public will buy his goods, and what he can pay in wages depends on what the public will pay him. This brings us back to the fundamental idea of Distribution, viz. that what there is to distribute depends on the amount of the produce sold and the price at which it is sold. Each worker gets a share of the joint income so derived, and this is his individual income. The sum of the individual incomes cannot exceed the amount that is available for Distribution.

Supply of Labour.

We must now approach the question from the side of the labourer and examine the conditions which affect the supply of his services. In the first place it will be noticed that at any given moment the supply of labour of any particular kind cannot exceed the number of people able to do the work in question. If the task needed unskilled labour it might be said that all able-bodied workers formed a possible source of supply. But the supply of skilled labour is much more restricted. If the demand for skilled labour of a particular kind exceeded the supply, it is probable that many just starting in life would be induced to take up this trade, and that some workers in other trades, especially if the work were very similar, would change over to it. But some trades are difficult to learn, and the expert workman has acquired his skill only by years of constant practice, so that it may take a long time to increase the supply of labour in any given trade.

By the term **supply of labour** is meant, not the number of persons qualified to do the work, but the number of qualified persons willing to do the work at a particular rate of wages. The number able to do the work is only the extreme limit of supply. Thus, as with commodities, supply cannot be considered apart from price. In the long run, too, it may be said that the supply of labour

varies with the price that can be obtained for its services. If the wage offered fell below a certain amount, there might be no supply at all. On the other hand the higher the wage, the greater the inducement to take up that particular line of work and the greater therefore is likely to be the supply.

With regard to inducement it is worth noticing that what really attracts the supply of labour is not the money wage, but what that money will buy. A distinction has to be made between **Money Wages** and **Real Wages.** The former is the amount of money that is given in exchange for the services of labour, the latter is the amount of food, clothing, shelter and enjoyment that can be obtained by means of that money. Real wages then depend on the prices of things in general, on what is called the **general level of prices.** If prices rise but money wages remain the same, the inducement to labour is diminished. Here we find a difference between the employer's point of view and that of the employed. The employer measures wages by the money he has to pay out, the employed by the extent to which his wants can be satisfied.

The greatest service, perhaps, rendered by Trade Unions has been to give the workers a minimum or reserve price for their labour. Below this minimum there is no supply. In this way a certain standard of living is maintained, and the standard of efficiency is raised. The minimum fixed by a Trade Union for any particular class of work is based on three main considerations:—

(i) the cost of maintaining a certain standard of comfort;

(ii) the character of the occupation;

(iii) the time and money spent in acquiring the necessary skill.

In occupations which are both pleasant and easy to learn,

the minimum would depend entirely on the first of these. In coal-mining the first two would have to be taken into account. In engineering and other trades in which a high degree of technical skill is required, all three would be of importance.

The Determination of Wages.

The fact that in the case of most skilled occupations the wage contract is the result of a collective bargain between employers and employed, suggests that there is a close resemblance between the determination of the wages of labour and the determination of price when there is but one buyer and one seller[1].

The employer's maximum is a question of the productivity of labour, and, as shown earlier in the chapter, the productivity of labour varies very much in different businesses and according to the number of men employed. If all the available men are to be employed, the wage must not be higher than the amount the last worker that could be engaged would add to the product[2].

The Trade Union minimum is based on the considerations just mentioned. The standard of comfort, however, is not a fixed one. The constant aim is to raise it. But whether it can be raised or not depends on the productivity of labour, and on the general level of prices. In times of general prosperity wages will probably be higher, but if this state of things is only temporary, they are likely to fall again when trade is bad, with a result that the standard of comfort is no higher. Wages at the present time are higher than they were 10 years ago, but the cost of living has increased even more, so that in effect, the standard of comfort has tended to go down.

[1] See Example III on p. 104.

[2] The reader should bear in mind throughout this argument that what is represented is not necessarily true in every individual case, but is the general tendency in the industrial world as a whole.

In Example III of Chapter IX it was pointed out that if the seller's minimum was greater than the buyer's maximum, no sale resulted. Similarly in the case of wages, if the workers demand a higher wage than the trade can afford, i.e. if their minimum is higher than the employers' maximum[1], no labour will be employed, the works will have to be closed. If, on the other hand, the workers' minimum is less than the employers' maximum there is room for bargaining, and the rate of wages determined upon will depend on the relative bargaining strength of the two parties.

The strength of the workers is considerably affected by their numbers. If labour of a particular kind is very plentiful, standing out for a wage above the minimum would probably mean that a large number of workers would be unemployed. On the other hand if the industry was growing faster than the numbers of those engaged in it, the workers could secure the best possible terms. This can be best illustrated by taking a simple example. If in a particular trade there were 10,000 skilled workers capable of doing a certain kind of work, but the limits set by productivity were as follows:—

If wage were	**10d.**	**an hour**	**5000 could be employed**
,,	**9½d.**	,,	**8000** ,,
,,	**9d.**	,,	**10,000** ,,

it would be evident that the workers would have to choose between

(*a*) accepting 9*d.*, and having all their men employed,

(*b*) accepting 9½*d.*, and having to support 2000 of their number in idleness.

(*c*) accepting 10*d.* and having half their number unemployed.

[1] This maximum is not what any one particular employer could afford to give, but what could be paid by employers as a whole if fluctuations of trade were taken into account.

The conditions upon which the maximum is calculated are constantly changing, but the rates of wages fixed by agreement hold good for the period of the contract. This may be to the advantage of the employers or it may be the reverse; in any case they take this risk. An increase in the price of the raw material and fuel or a fall in the price of the finished article makes the labour less productive, a decrease in any of the expenses of manufacturing or a rise in the price of the finished article would make the labour more productive.

In conclusion, it is necessary to emphasize one very important fact:—**Wages are paid because work is done.** The value of the service depends on the value of the product, and the value of the product is measured not by the amount of labour expended on it, but by the price that people in general are willing to pay for it.

CHAPTER XIV

INTEREST AND PROFITS

"Interest is the return from the fund of capital; profits are the return from the conduct of business enterprise....Interest is a part of cost; profit is a surplus above cost."—SELIGMAN[1].

THE last two chapters have been concerned with the incomes of landlords, workers and organizers. It only remains, therefore, to find an answer to the question—What determines the share of the product which forms the income of the capitalist?

The **income of the capitalist** is a reward for two distinct services,

(*a*) **the service of capital,**

(*b*) **the service of enterprise.**

[1] See footnote to page 56.

The former of these has a definite market value generally known as the **Rate of Interest,** the latter depends for its reward on the surplus or **Profits** which may or may not result from the industrial effort.

The distinction becomes clear when a concrete example is taken. In a Joint Stock Company the capital is provided by the shareholders who for this service of providing capital receive out of the net product a payment in proportion to the amount of capital each has subscribed. The shareholders however do not all take the same amount of risk and some even may be said to take no risks at all. There are generally speaking three classes of shareholders:—

(i) The **Debenture holders**—these take practically no risks and receive for the use of their capital a small fixed rate of interest.

(ii) The **Preference shareholders**—these take a certain amount of risk for which they are rewarded by the payment (when the proceeds of the business permit of it) of a somewhat higher rate of interest than the *debenture* holders receive.

(iii) The **Ordinary shareholders**—these are the real risk-takers. The company has undertaken to pay a certain rate of interest to the *debenture* holders, and, if possible, a certain higher rate to the *preference* shareholders, but no promise to pay any definite amount has been made to the *ordinary* shareholders. These take their chance of there being any of the net product left over after the other two classes have been paid. If there is anything left over it comes to them. Whatever they receive **over and above** what might be regarded as the market price of the service they render is the reward of enterprise. This additional amount is **not Interest but Profits.** It is a compensation for the special risks that are

run, and the possibility of there being a surplus available for this purpose is the real incentive to business enterprise.

In reckoning the expenses of production with a view to fixing the minimum price at which the goods could be sold, the remuneration of capital is included, and the rate of interest allowed depends on the nature of the risks that are run. Let us take by way of example a certain company with a capital of £100,000. Of this, £10,000 is *Debentures*, on which 3% has been guaranteed, £40,000 is *Preference* stock which is to receive 5% and £50,000 is *Ordinary* stock. Since the *ordinary* shareholders would be the first to suffer if business was bad, it may be supposed that their remuneration would be estimated at say 7%. The amount of interest reckoned in the expenses of production would thus be:—

		£
On £10,000 3% Debentures	Interest =	300
On £40,000 5% Preference Stock	,, =	2000
On £50,000 Ordinary Stock (@ 7%)	,, =	3500
Total Interest		£5800

If at the end of the year, when the accounts of the company are balanced up, it is found that after paying rent, wages and salaries, there is only enough over to pay £3800 as interest, the £2000 that is short will come off the income of the *ordinary* shareholders and they will only receive £1500 or interest at the rate of 3%. If on the other hand business has been good and there is enough over to pay £7300, the additional £1500 will be added to the share of the owners of *ordinary* stock, who will thus get 10% instead of 7%. This additional 3% goes by the name of **Profits.**

Profits then **is the net surplus** which remains after all expenses of production have been paid, including interest at certain rates calculated according to the character of the stock. **Profits is an** additional income to those taking full

risks, compensating them for the possibility of their not receiving any income at all for their capital and their enterprise.

DISTRIBUTION
of the
NET PRODUCT OF INDUSTRY

Rent of Landlord
Wages and Salaries of Employees
Salaries of Organizers
Interest on Debentures
„ on Preference Stock
„ on Ordinary Stock
PROFITS

If the business that we have taken as our example instead of being a Joint Stock Company had been a *private*

undertaking, the distinction between interest and profits would not be quite so clear, because they are both paid to the same persons. Let us suppose that the business is conducted by two partners, each owning half the capital. Each partner's income will be a reward for three services:—

(1) *Organization*, (2) *Capital*, (3) *Enterprise*.

For the first service the partners may be supposed to share the amount which in the Joint Stock Company was paid to the directors and the manager in the form of salaries. For the second and third services they share the whole of the sum that was before available for interest and profits. Interest on their capital they will no doubt reckon at some fixed rate, say 6%, and the remainder, the net surplus, they will regard as profits. Taking the figures given above[1], the incomes of the partners would work out as follows:—

Amount available for division between them = £7300 + the sum which in the case of the Joint Stock Company was paid out as salaries to directors, etc., say £5000		**= £12,300**
Each partner receives therefore		**£6150**
which may be assumed to be made up as follows:—		
Salary as organizer	**£2500**	
Interest on £50,000 at 6%	**3000**	
Profits of enterprise	**650**	
	£6150	

Since profits is the balance which remains over when all the expenses of production have been met, it is evident that everything will tend to increase profits that either diminishes expenditure or increases revenue. For example, expenditure would be diminished if less were paid for raw

[1] See page 171.

material, for rent, for wages, for interest, or if there were any saving in the working expenses of any department of the business. Revenue would be increased if there were greater efficiency or if the goods realized higher prices. But it must be remembered that neither of these alone necessarily increases profits. Expenses may be less but revenue may also be less, in which case the one may counterbalance the other.

That there are any profits at all is mainly due to three causes:—

1. Expenses are for the most part incurred before the goods are sold. Contracts for wages, etc., are made in advance and are based on an estimate of the probable results of trading. If these results were overestimated, the expenses might exceed the revenue and the business might fail altogether. The employer therefore will try to be on the safe side, and hence the chances are that there will prove to be a surplus, though the attempts of rivals to obtain customers by underselling will tend to reduce this surplus within comparatively small limits.

2. The contracts for wages, etc., are based on the supposition that the goods will realize a certain price. But prices are subject to fluctuations, and hence the actual results are very difficult to forecast. In this way also profits may arise, though it is equally possible that prices may fall and that there may be a loss.

3. In many businesses there is some element of monopoly, that is to say some special advantages are enjoyed which are not shared by rivals. These advantages may be of two kinds:—

(*a*) Advantages in production due to large scale, better machinery, patent rights, etc., which tend to diminish expenses.

(*b*) Advantages in the market which enable the producer to fix his own price.

Of these three causes of profits the last is perhaps at the present day the one that plays the most conspicuous part. Large profits it is true are often made in consequence of a sudden rise in prices, but such gains are very occasional and are not infrequently counterbalanced by loss at some other time. Where, however, large profits are regularly secured, it may be assumed with a certain amount of probability that those who make them are enjoying some kind of monopolistic advantage.

Interest.

So far we have assumed the interest to be at a given rate, now we must consider how the rate of interest is determined.

Interest may be defined as "the price paid for the services of capital." But this definition is not very complete as it is only looking at the matter from the side of the borrower or user of capital. To the *borrower* the services of capital depend on the use to which it can be put and on the advantage to be derived from that use. The *lender* of capital, on the other hand, the *capitalist* as he is called, looks upon interest as payment for the service rendered by him. He has wealth which he can use in the immediate satisfaction of his wants. But for various reasons he decides to postpone this satisfaction. Instead of consuming his wealth[1] he applies it to some productive purpose, that is his wealth takes the form of capital. This then is the service he renders to Production. Capital is needed; capital only exists when the owners of wealth postpone its consumption. The capitalist renders his service by *waiting*, and interest has been called *the price of waiting*[2].

[1] To consume wealth is to use it in the direct satisfaction of wants.

[2] "Interest is the price paid for an independent and elementary factor of production which may be called either waiting or use of capital, according to the point of view from which it is looked at." Prof. G. Cassel (of Stockholm), *The Nature and Necessity of Interest.*

These two points of view may be described as the **Demand side** and the **Supply side,** and the interaction of the forces which influence borrowers and lenders results in a price for the service of capital—**the Rate of Interest.**

On the *Demand* side the main consideration is

Capital and the advantage of using it.

On the *Supply* side the main consideration is

The Capitalist and the inducement to him to lend.

The Demand for Capital. Capital is demanded because there is an advantage to be gained from its employment. Just as in the case of labour, there is a limit to the amount that will be demanded, because if an industry is conducted on too large a scale for the market, the goods produced will not find buyers at a remunerative price. Beyond a certain amount the advantage to be derived from the use of capital will diminish until at a given rate of interest it is only just worth the producer's while to borrow. The higher the rate of interest the less is he inclined to borrow and *vice versa.* An example will make this clearer. In a particular business the advantage derived per cent. from the employment of £100,000 capital was 5. More capital was then borrowed but the advantage of a second £100,000 was only 4½. The manufacturer calculated that if he continued to borrow, the advantage of adding further amounts of capital would be even less. Thus:—

Capital £	Advantage of last portion borrowed
100,000	5 per cent.
200,000	4½ "
300,000	4 "
600,000	3½ "
800,000	3 "
1,000,000	2½ "

How much will he borrow? That depends on the rate of interest charged. If he could borrow at 4%, he would employ a capital of £300,000; if he could borrow at 3½%, he would employ a capital of £600,000 and so on.

The **conditions of demand** then are mainly two:—

(1) Capital is only borrowed when there is an advantage to be gained by so doing.

(2) The amount of capital borrowed depends on the rate of interest that must be paid for its use.

The Supply of Capital. In the Middle Ages the capitalist hardly existed. The receiving of interest (usury as it was called) was forbidden and property was far from secure. There was therefore no inducement to lend, and, it may be added, there was very little opportunity for the productive use of capital. Even where there is opportunity, capital is not forthcoming without inducement and the two elements of inducement are

(*a*) rate of interest, and

(*b*) security.

But it must be remembered that some are much more easily induced to save than others. This difference is sometimes national. Adam Smith tells us that in his day the Dutch were content with a very low rate of interest. "The Government there," he says, when speaking of Holland, "borrow at two per cent., and private people of good credit at three." In England at the same time the current rate was about half as much again. The French people also are as a rule very thrifty. They save and lend even when the rate of interest is very low.

Generally speaking we may say that the amount of capital that would be forthcoming at any given time depends on the rate of interest that would be paid for its use. Let us take by way of example the case of a man with £1000 a year. He feels it his duty to save a part of

his income and even if the rate of interest were only 2½% he would put by each year £200. If the rate of interest were 3% he would be induced to do without something and to save another £50. Each rise in the rate of interest would lead him to save still more until if 5% were offered he might even put by £500 a year. If we now apply this on a much larger scale—we might draw up the following table:—

Rate of Interest	Amount of Capital forthcoming
	£
5 per cent.	1,000,000
4½ "	800,000
4 "	600,000
3½ "	300,000
3 "	200,000
2½ "	100,000

The **conditions of the supply of capital** can then be stated as follows:—

(1) Capital is only forthcoming when there is sufficient inducement offered.

(2) The amount of capital forthcoming depends on the rate of interest.

The Rate of Interest. Having considered the conditions of supply and demand we are now in a position to notice the interaction of these forces in the determination of a price for the use of capital. The tables already given can now be combined in one, thus:—

If the rate were 4%, *demand* would = £300,000 and *supply* would = £600,000. The stronger lenders would then offer to take less.

If the rate were 3½%, *demand* would = £600,000 and *supply* would = £300,000. The stronger borrowers would then offer to give more.

Thus the rate would be between $3\frac{1}{2}\%$ and 4%, and it is possible that at $3\frac{3}{4}\%$, £450,000 would be offered and £450,000 taken, in which case demand and supply would be in equilibrium.

It may further be assumed that the advantage of borrowing the last £150,000 of capital was exactly $3\frac{3}{4}\%$ (since £300,000 would have been borrowed at 4%) and that the inducement necessary to call forth the last £150,000 was also $3\frac{3}{4}\%$ (since £300,000 would have been lent at $3\frac{1}{2}\%$).

Demand		Supply
Amount of Capital that would be borrowed	**Rate of Interest**	**Amount of Capital that would be lent**
£		£
100,000	5 per cent.	1,000,000
200,000	$4\frac{1}{2}$ "	800,000
300,000	4 "	600,000
600,000	$3\frac{1}{2}$ "	300,000
800,000	3 "	200,000
1,000,000	$2\frac{1}{2}$ "	100,000

Throughout this argument nothing has been said about risks. In fact it has been assumed that the borrower ran no risk in lending. In most cases, however, the lending of capital does involve risk and this would be taken into account when any particular bargain for the use of capital was made. The character of the risks would affect both the rate the borrower was willing to give and the rate that the lender was willing to take, but the rate actually paid would be determined precisely in the same way as in the example given above.

Conclusion.

It has been shown that the income of the individual is a payment for service rendered. That this income may

take the form of Rent, Salaries, Wages, Interest or Profits. That in each of the first four cases the service rendered has a market price, which, like any other price, is determined by the interaction of the forces controlling Demand and Supply. That Profits is not determined in this way but is the net surplus which remains when all other claims have been satisfied.

Thus the net product of industry is distributed among those who have taken part in one way or another in the productive effort. Whether or not the existing system of Distribution satisfies the claims of justice or achieves the best social results is quite outside the scope of the present work. In dealing with this question as with others the aim has been to point out and to explain things of every-day occurrence, to illustrate and to arouse interest in the Economics of everyday life.

SHORT LIST

OF

BOOKS USEFUL FOR FURTHER STUDY[1]

A. Text Books of Economic Theory.

1. Elementary.

A. Marshall, *Economics of Industry.*

C. Gide, *Principles of Political Economy.*

J. S. Nicholson, *Elements of Political Economy.*

2. More Advanced.

A. Marshall, *Principles of Economics.*

E. R. A. Seligman, *Principles of Economics.*

J. S. Nicholson, *Principles of Political Economy.*

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J. A. Hobson, *Evolution of Modern Capitalism.*

T. N. Carver, *The Distribution of Wealth.*

Hartley Withers, *The Meaning of Money.*

G. Cassel, *The Nature and Necessity of Interest.*

W. Cunningham, *Modern Civilization in its Economic Aspects.*

E. Jenks, *A History of Politics.*

W. Smart, *The Theory of Value.*

S. and B. Webb, *Industrial Democracy.*

W. T. Layton, *Introduction to the Study of Prices.*

[1] There is such a large number of standard works on economic subjects that selection is extremely difficult. The few given here are taken from those in most general use; beginners would find a larger list confusing. More advanced students will find an excellent bibliography in Seligman's *Principles of Economics.*

C. ECONOMIC HISTORY.

1. **Outlines.**

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